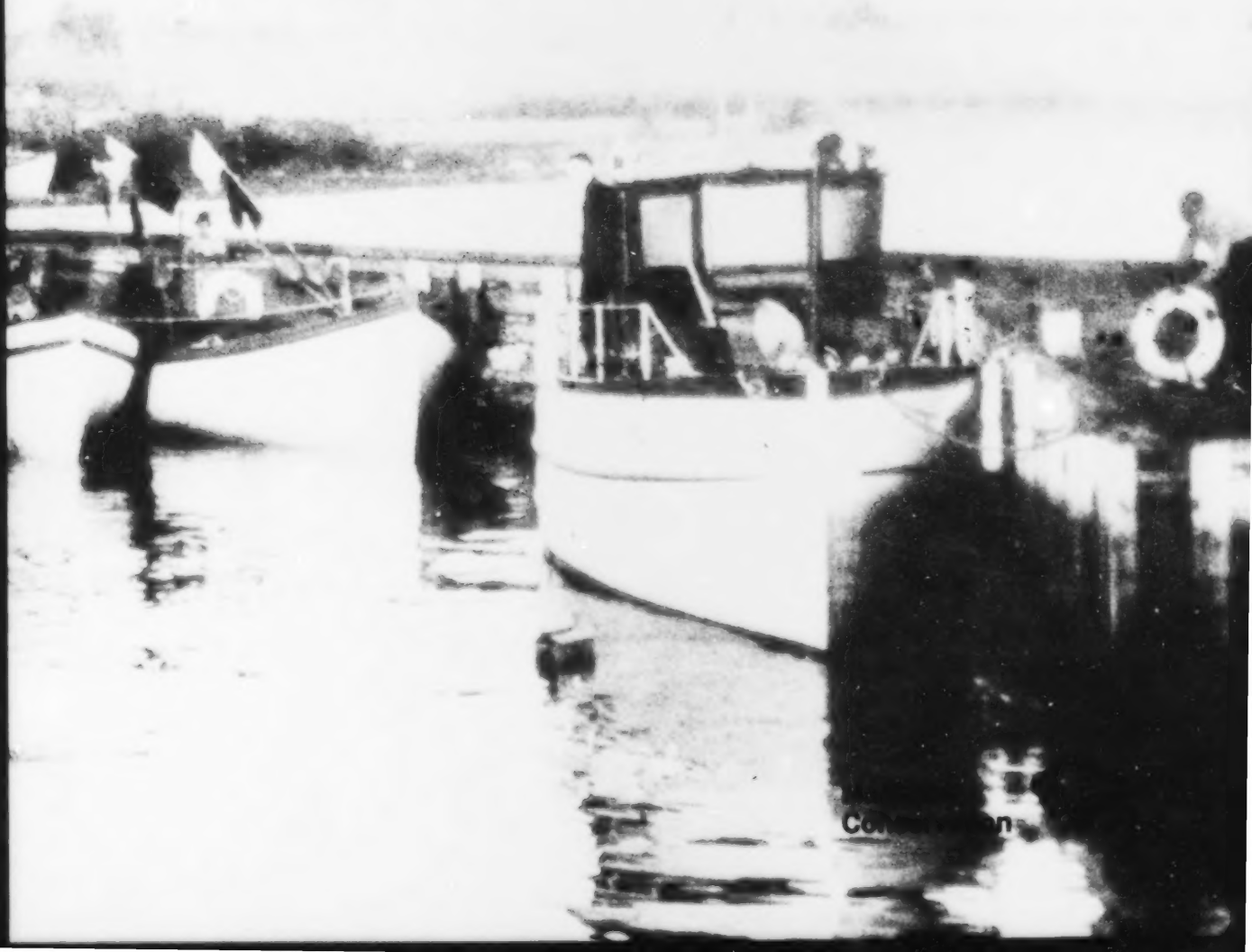
MANITOBA FISHERIES

Five Year Report to the Legislature

Year Ending March 31st, 1999



Front Cover: Gimli Harbour - Early 1930's

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To His Honour
The Honourable Peter Liba
Lieutenant Governor of Manitoba

Your Honour:

As Minister of Conservation, I am pleased to present the fourth Five-year Report to the Legislature on Manitoba Fisheries for the period of April 1, 1994 to March 31, 1999. Positive and encouraging developments in fisheries conservation have taken place over the past five years.

Manitoba Conservation developed the Urban Sport Fishing Plan, in partnership with the City of Winnipeg, Mid-Canada Marine Dealers Association, and Manitoba Wildlife Federation. The Plan encourages urban residents to take up angling as a healthful form of outdoor recreation. The program includes urban fishing clinics, a Family Fish Festival at the Forks, Fish Winnipeg Media/Corporate Challenge which supports the City of Winnipeg "At Risk Youth" fishing programs, and the development of urban fishing sites.

Fisheries Branch has developed a Manitoba Fisheries Educational Internet website, directed at teachers and children as a resource tool in the science curriculum to assist teachers in integrating the theme of sustainable development in the classroom, and meeting grade-specific prescribed outcomes.

The Fisheries Enhancement Fund helps local organizations improve fisheries in their areas and has supported 126 local projects, ranging from stream rehabilitation, and construction of fish ladders, to assisting local organizations enhancing walleye stocks through running their own spawn-collection and hatchery operations, to increased fish stocking to improve fish populations.

In cooperation with a number of local organizations, landowners, and communities, the Little Saskatchewan River Project in western Manitoba is a model watershed project and has shown such positive results that it may be considered a model to conserve and develop other watersheds.

This report reviews the status of the fisheries resources in the Province for the past five years and forecasts trends that are to be expected over the next five years.

Yours sincerely,

Hon. Oscar Lathlin
Minister

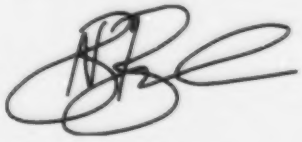
To the Honourable Oscar Lathlin
Minister of Conservation

Sir:

I am pleased to provide the Five-year Report to the Legislature on Fisheries for the period from April 1, 1994 to March 31, 1999.

The report provides an overview of the status of fisheries, an assessment of fisheries management programs undertaken over the past five years, and an examination of trends and challenges into the next century.

Yours sincerely,



Norm B. Brandson
Deputy Minister

MANITOBA FISHERIES

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Manitoba
Conservation

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Executive Summary

The Five Year Report to the Legislature on Fisheries reviews the status and management of Manitoba's fish resources during the period between April 1, 1994 to March 31, 1999 with emphasis given to specific actions taken in maintaining and improving provincial fisheries.

Since 1994, Manitoba Conservation fisheries staff has carried out a wide range of activities designed to sustain and enhance fish resources and to serve the people who fish for recreation, food or profit. A number of the activities are highlighted below:

- **Stream and streambank rehabilitation** on portions of seven creeks and rivers flowing into Dauphin Lake was completed. Negotiation of specific rehabilitative measures on farms have been conducted with landowners, the Dauphin Lake Basin Advisory Board (DLBAB) representatives and fisheries advisors. Stream rehabilitation measures for sediment and nutrient reduction include stream gradient control structures, bank resloping, revegetation, off-channel livestock watering sites, riparian corrider fencing, and stable livestock crossings.

- The **Fisheries Enhancement Initiative Fund** was created to help local organizations improve fisheries in their areas. This $ 350,000 fund is supported by the sale of licence stamps as part of recreational, bait, and commercial fishing licences. Since 1994, the fund has supported 126 local projects, ranging from stream rehabilitation, and construction of fish ladders, to assisting local organizations enhancing walleye stocks through running their own spawn-collection and hatchery operations, to increased fish stocking to improve fish populations.

- The **Little Saskatchewan River Project** in western Manitoba is a model watershed project. The project coordinates a number of local organizations, landowners, and communities. Project work includes water quality improvement, fish spawning enhancement, fishways and riverbank conservation. The funding level is $ 625,000 over five years, contributed from the Fisheries Enhancement Initiative and the Special Conservation Fund. This project has shown such positive results that it may be considered a model to conserve and rehabilitate other watersheds.

- Manitoba Conservation produces and stocks more than 100 million fish per year through our **hatcheries** and by supporting local hatcheries. Millions of walleye fry are stocked and used for both recreation and commercial fisheries. **Fish Culture** continues to assist a growing number of volunteer organizations in efforts to collect spawn and incubate eggs from walleye in their local areas. These projects are intended to enhance local walleye stocks. Walleye spawn collection efforts were undertaken at Lonely Lake Drain, Lynch's Point, the Icelandic River, the Wanipigow River, Paimusk Creek, and Waterhen Lake. Through the trout hatchery system, Manitoba Conservation stocks an average of one million fingerling and catchable trout per year.

- As requested by the Prairie Provinces Water Board, the **Instream Flow Needs Committee** has compiled instream flow methods and experiences from the Prairie Provinces and nearby jurisdictions in the United States. This report is in final review and will recommend a list of suitable instream flow methodologies to protect fish in the Prairie Provinces. Fisheries Habitat Section joined the Instream Flow Council, which is an international technical support group of instream flow experts and will be participating in developing policy directives for this group.

- The Branch developed a **Manitoba Fisheries Educational Internet website**. Directed at teachers as a resource tool in the science curriculum, the material will assist teachers in integrating the theme of sustainable development in the classroom, and meeting grade-specific prescribed outcomes. In partnership with the Service First Fund (a Manitoba program that supports new and innovative ideas), funding was received for the development of grade specific educational materials to be incorporated into the existing web site. Branch staff, working with Manitoba educators, have developed grade-specific exercises (K through 4) which can easily be accessed through the site providing a valuable resource tool for teachers.

- Further to the national conference for Fisheries Ministers, the **National Recreational Fishing Working Group (NRFWG)** was formally established. A workshop to discuss national recreational fishing issues was held in Quebec City and was chaired by Manitoba's Fisheries Branch representative. A national action plan was developed at the workshop to discuss the three major issues identified: 1) declining angling participation, 2) fisheries conservation/ protection and 3) national coordination of NRFWG activities. From the action plan Manitoba coordinated a task team of provincial and private sector representatives in the development of a "youth fishing initiative."

- Manitoba Conservation developed the **Urban Sport Fishing Plan**, in partnership with the City of Winnipeg, Mid-Canada Marine Dealers Association, Manitoba Wildlife Federation and Fish Futures. The Plan encourages residents and visitors to take up angling as a healthful form of outdoor recreation. The program includes urban fishing clinics, a Family Fish Festival at the Forks, Fish Winnipeg Media/Corporate Challenge which supports the City of Winnipeg "At Risk Youth" fishing programs, and development of urban fishing sites.

- Royal assent was given to **The Fisheries Amendment Act**. This amends **The (Manitoba) Fisheries Act** to allow Natural Resource Officers the authority to stop and inspect vehicles for offenses, and increases maximum fines levels. The **Fish Transportation Loadslip Regulation**, under the Act was proclaimed and addresses problems with illegal transportation of fish. A **Commercial Fishermen's Record Regulation** was also proclaimed and replaces the commercial fisherman's sales receipt regulation.

- An amendment to the **Manitoba Fishery Regulations**, allows the Province to close any water body to fishing for any species in accordance with the Sparrow decision. Manitoba will also be able to vary any such closure as the need arises allowing needed flexibility where over-exploitation of a particular fishery occurs.

- The *Fisheries Act* was amended, incorporating **licensing and fee setting authority** and providing jurisdiction for such issues as allocation of fish resources, fishing tournaments, safety and stock enhancement. The amendment consolidates and coordinates authority for the licensing and allocation of all aquatic organisms (including leeches) harvested in Manitoba.

- ***The Fishing Licence Fee Regulation and Fishing Licensing Regulation*** were published in the Manitoba Gazette replacing federal laws in affect for many years. Provincial regulation of fisheries licensing matters will make management programs more responsive to needs of Manitoba people, by permitting more effective public involvement in management decisions.

- Fisheries Branch staff participated in Manitoba Conservation's **Ecosystems Based Management (EBM)** pilot project in the Manitoba portion of the Lac Seul Upland ecoregion (Ecoregion 90) on the east side of Lake Winnipeg. The pilot project emphasizes "how to do" many aspects of EBM using Ecoregion 90 as the study area, with the primary objective being to develop processes and procedures that, ultimately, could be applied broadly by government and non-government resource managers in the various ecological regions of the province.

Introduction

Manitoba is blessed with a wealth and diversity of fish resources. Fish have been an important source of food since the beginning of habitation and to this day are integral to the lifestyle and culture of the Aboriginal community. Early European settlers depended on fish for food and commerce. Today, recreational angling in the province contributes to our quality of life and economy.

Quality fish habitat and water are a prerequisite to healthy fish stocks. The history of European settlement has included many impacts to fish habitat, beginning with agricultural practices. The need to quickly remove water from fields resulted in many streams being channelized. Likewise, technology and industrialization advanced the need for affordable electricity. The resulting hydro electric power development has affected fish habitat. Urbanization and its associated development have also affected water and fish habitat quality.

Increasingly, Manitobans have become aware of the need to protect and maintain streams and aquatic environments as critical components of the planet upon which not only fish but our existence depends. Fish are indicators of aquatic ecosystem health and a critical part of the web of life upon which humans depend. If we choose to weaken the web and harm habitat or fish stocks, we ultimately harm ourselves and our children.

Manitoba's valuable fish resources continue to be important culturally, socially, economically and environmentally. We must protect, use, develop and manage our fish resources in a sustainable manner to ensure not only this generation but future generations have the opportunity to benefit from its use and enjoyment.

SOME FACTS TO CONSIDER .....

- 15% of Manitoba's 665,000 square kilometres of area is fish-bearing waters.
- In 1998, recreational licence sales increased to a ten-year high of 183,500. Based on the 1995 national angler survey, licence anglers in Manitoba fish over 2.2 million days and spend over $78,000,000 directly on angling, almost $28,000,000 of this spent by anglers from outside of Manitoba.
- Over 100 Manitobans are licensed in the bait fishing industry which has annual gross sales in excess of $650,000.
- In 1998\99, 2990 individuals were directly involved in Manitoba's commercial net fishing industry as licensed fishermen and helpers and harvested 12.2 million kilograms of fish.
- The commercial net fishing industry annually contributes over $23,000,000 directly to Manitoba's economy.
- In remote Aboriginal communities, fishing for food continues to be an important part of the culture and lifestyle.
- It has been theoretically estimated that the total potential sustainable yield of fish from Manitoba waters is 36 million kilograms.
- Fish are excellent indicators of environmental health.

FISHERIES FIVE YEAR REPORT TO THE LEGISLATURE .....

The Manitoba Fisheries Act states that the Minister for fisheries must provide a five-year report to the Legislature on the status of the fisheries resource. The following report fulfils this requirement for the fiscal years 1994-95 to 1998-99. The purpose of the report is to:

- review the status of Manitoba's fisheries;
- identify the factors and issues that affect the resources;
- review fisheries management programs and activities; and
- propose and examine management strategies and activities that will be implemented.

The report contains six major sections addressing Resource Supply, Recreational Fishing, Commercial Fishing, Domestic Fishing, Bait Fishing and Fish Farming. Each section outlines the objectives to be accomplished; describes resource status and trends; reviews fisheries management programs and activities that have arisen in the past five years; and presents management initiatives that have been undertaken.

Each section ends with "challenges" - a road map, of sorts that Fisheries Branch will follow to achieve the specific management goals and objectives it has set for the future.

Legislative Framework

The protection, ownership, allocation, use and management of fish and fish habitat, in Manitoba, are governed by the Canadian constitution, duly signed treaties and federal and provincial legislation.

Conservation of Fish Resources is Federal Jurisdiction:

Under section 92.12 of the *Constitution Act, 1867*, the Canadian Parliament has exclusive legislative authority to make laws respecting "Sea Coast and Inland Fisheries". This has been judicially interpreted to mean that only the federal parliament, and not the provincial legislatures, can make laws that are essentially about the conservation and preservation of fisheries.

Under the authority of s. 91.12 of the *Constitution Act*, 1867, Parliament has enacted the *Fisheries Act* (Canada). Under the authority of the *Fisheries Act* (Canada), regulations have been made to address specific fish management issues in each of the provinces. In Manitoba, fish are managed under the Manitoba Fishery Regulations, made under the *Fisheries Act* (Canada).

Fish on Crown Property are a Provincial Resource:

Until 1930, the Government of Canada administered and controlled all Crown lands and resources in Manitoba, Alberta and Saskatchewan. The *Constitution Act* of 1930 gave legal effect to Natural Resources Transfer Agreements in each of the prairie provinces.

These agreements transferred administrative control of Crown lands and resources to provincial governments, in order that the Governments of Manitoba, Saskatchewan and Alberta would be in the same position as the other provinces of Canada.

Par. 10 of the Manitoba Natural Resources Transfer Agreement states:

> "10 Except as herein otherwise provided, all rights of fishery shall, after the coming into force of this agreement, belong to and be administered by the Province, and the Province shall have the right to dispose of all such rights of fishery by sale, license or otherwise, subject to the exercise by the Parliament of Canada of its legislative jurisdiction over sea-coast and inland fisheries."

Therefore, since 1930, the Legislature of Manitoba has been able to make laws relating to the use of its own property, under the authority of s. 92(5) of the *Constitution Act*, 1867 ("the Management and Sale of the Public Lands belonging to the Province and of the Timber and Wood thereon").

Mixed Federal and Provincial Jurisdiction:

Consequently:

1. the Canadian Parliament has exclusive constitutional jurisdiction to make laws for the conservation of fish, including setting fishing seasons, quotas, size limits and gear restrictions, and does this under the authority of the *Fisheries Act* (Canada) and regulations to that Act; while

2. the Legislature of Manitoba maintains constitutional jurisdiction to make laws relating to the use and allocation of fish in Crown (Manitoba) waters as part of the public property. This includes the right to determine who can fish on provincial Crown land (licensing), what conditions may be included in a licence and what fee would be paid for the licence. This authority is exercised under *The Fisheries Act* of Manitoba and regulations to that Act.

Simply, those matters dealing with the conservation of the fish resource are addressed by the *Fisheries Act* (Canada) and the Manitoba Fishery Regulations made under that Act. Those matters relating to property rights in fish on Manitoba Crown land (water) are covered by *The Fisheries Act* (Manitoba) and regulations to that Act.

Fish Management and Administration:

While the Government of Canada retains ultimate legal authority and responsibility for fish and fish habitat conservation matters, some of the day to day management and administration of federal fisheries regulations has effectively been delegated to Manitoba officials: the Minister of Conservation, the Director of Fisheries and fishery officers employed by Manitoba.

Under the Manitoba Fishery Regulations (Canada), the Minister of Conservation and the Director of Fisheries have been given the authority to vary close times, quotas and gear types established under those regulations. Changes to the Manitoba Fishery Regulations (Canada) are proposed by the Minister of Conservation to Fisheries and Oceans Canada. Fisheries and Oceans Canada then reviews the proposed changes and forwards them for approval by Federal Cabinet (Governor in Council).

Legislative responsibility for management of fish habitat has not been specifically legislatively delegated to Manitoba officials. However, Manitoba Conservation continues to manage habitat as an adjunct to other fish management activities.

Legislative and Regulatory Amendments:

Since 1994, Fisheries Branch has amended 1) Federal regulations by recommendation and 2) Provincial Fisheries Acts and regulations.

On July 5, 1994, royal assent was given to an amendment of ***The (Manitoba) Fisheries Act*** to authorize Natural Resource Officers to stop and inspect vehicles for offenses, and increases maximum fines from $500 to $10,000. The **Fish Transportation Loadslip Regulation**, under the Act was proclaimed on July 27, 1994 to address problems with illegal transportation of fish. This regulation, applicable to all Manitobans addresses concerns fishermen have expressed about quota management and control. A **Commercial Fishermen's Record Regulation** was also proclaimed on July 27, 1994 to replace the commercial fisherman's sales receipt regulation. This regulation improves reporting of fish harvested and sold to consumers or consigned to a fisherman's representative.

In 1996, another amendment to *The Fisheries Act* (Provincial) received royal assent to incorporate licensing and fee powers and to make provisions for dealing with provincial jurisdiction issues, such as allocation of fish resources, fishing tournaments, safety and stock enhancement. This amendment consolidates and coordinates authority for the licensing and allocation of all aquatic organisms (including leeches) harvested in *The Fisheries Act* of Manitoba.

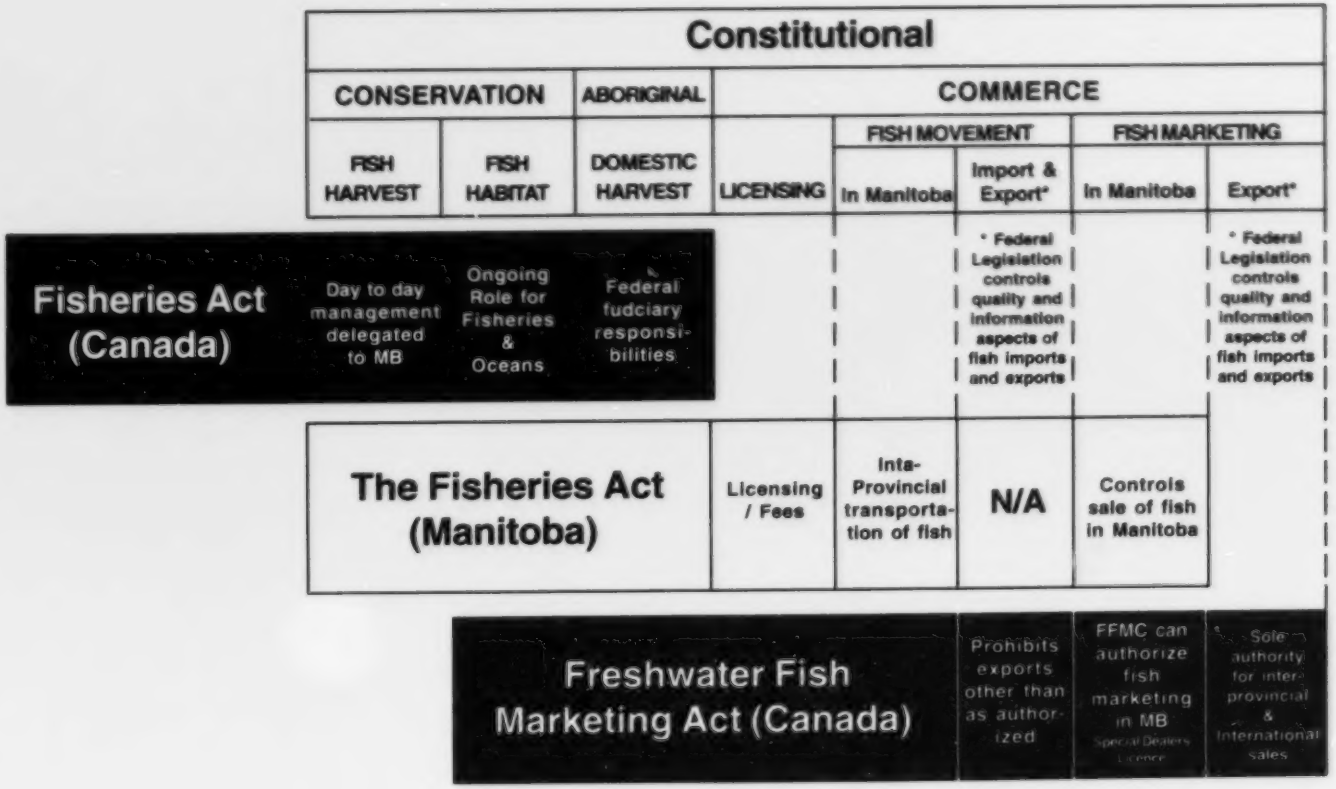
The Fishing Licence Fee Regulation and Fishing Licensing Regulation were published in the Manitoba Gazette on June 7, 1997 and June 14, 1997, respectively, replacing federal law. The **Fishing Licence Fee Regulation** incorporates fees payable for fishing licences under *The Fisheries Act*. The **Fishing Licensing Regulation** establishes licensing requirements and makes provisions for dealing with provincial jurisdiction issues, such as allocation of fish resources, aquaculture, fishing tournaments, safety and stock enhancement. These regulations will make management more responsive to Manitobans' needs by supporting new approaches to effective public involvement in management decisions.

Ticketable set fines for the amended *The Fisheries Act*, Chapter F90 and the Fishing Licensing Regulations were incorporated in the *Summary Convictions Act* and published in the Manitoba Gazette on November 29, 1997.

An amendment to the Fishing Licensing Regulation was made by the Minister of Conservation on October 23, 1997 and published in the Manitoba Gazette on November 8, 1997. This amendment allows the Department of Conservation to close an area around an aeration discharge site for anglers on a discretionary basis. The closed area includes signage requirements to "warn" anglers and snow machine traffic of open water and thin ice conditions that may be present around the aeration site.

Fisheries Branch developed a legislative framework guide to help clarify the legislative framework for Manitoba's fisheries. As well, the guide examines the evolution of the Canadian federation, the constitution, the legal aspects of the fisheries, and the leading judicial decisions on Canadian and Manitoba's fisheries.The goal of this guide is to provide magistrates and Justices of the Peace, crown attorneys, judges and Conservation staff with a clearer understanding of the legislative prerogatives of the federal and provincial agencies responsible for Manitoba's fisheries. Such an understanding will serve to outline institutional constraints imposed on fisheries managers and more accurately direct court proceedings on fisheries charges.

Legislative Framework for Manitoba Fisheries



INTRODUCTION

A large proportion of Manitoba is lakes, rivers, streams and marshes. These waterbodies provide important fish habitat. The supply of fish is directly effected by changes to the quality and quantity of fish habitat.

Federal and Provincial environmental and fisheries legislation provide for the protection and conservation of fish habitat. The Federal "No Net Loss of Fish Habitat" (1986) policy has been endorsed by Manitoba. This is a working principle which strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that reductions in Manitoba's fish resources due to habitat loss or damage may be prevented. Provincial and Federal environmental licensing and provincial crown land work permits have provided the mechanisms and processes to ensure no net loss of fish habitat in the province.

OBJECTIVES

The objectives for maintaining healthy and productive fish communities and habitats that provide sustainable benefits to present and future Manitobans are:

1. *to protect and conserve healthy fish habitat; and*
2. *to rehabilitate and enhance degraded fish habitat.*

Fish Habitat

STATUS AND TRENDS

The province has reviewed in excess of 1115 Manitoba Environment Act License applications and related environmental impact assessments over the past 5 years. These reviews ensured impacts to fish and fish habitat from developmental activities are mitigated or where loss is unavoidable habitat compensation occurs. During this same period the province has developed, published and distributed construction and operating guidelines for the protection of fish and fish habitat which include; ***Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat (1996)*** **and** ***The Manitoba Natural Resources Consolidated Buffer Zone Guidelines.***

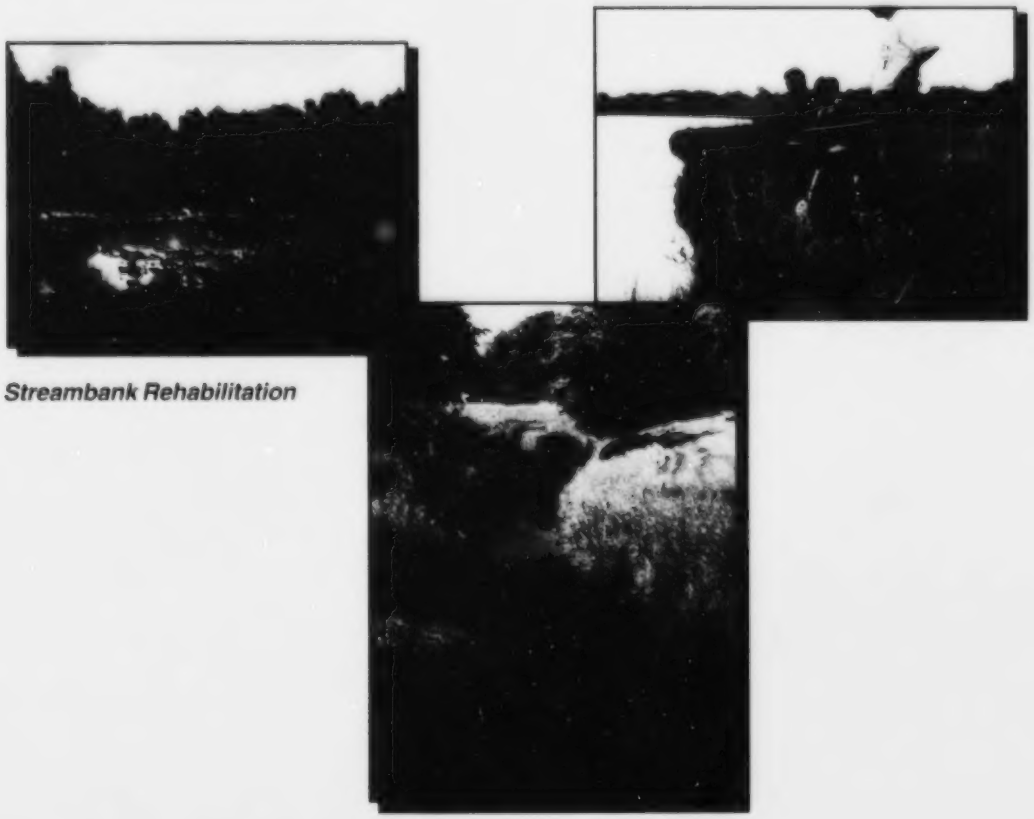
Since the last Five Year Report to the Legislature - For the Year Ending March 31, 1994 significant progress has been made towards rehabilitating and enhancing degraded fish habitat especially in Agro-Manitoba. **The Fisheries Enhancement Initiative**, which funds projects carried

out by non-government organizations, has contributed $1.6 million to 129 projects directed at enhancing and rehabilitating fish habitat. The majority of these projects were directed at stream rehabilitation and enhancement. Fish passage problems in the province continue to be addressed, especially in the streams and rivers of southern Manitoba.

Water quality and sufficient instream water flows are critical fish habitat issues. To address these issues, the province has undertaken a watershed approach. This approach involves working with the multi-interests in a watershed, identifying a vision, issues and problems, and required actions to address issues. The Dauphin Lake Stream Rehabilitation Program was completed and the Little Saskatchewan River Watershed Management – Fish Habitat Rehabilitation Program was implemented and nears completion.

Manitoba's annual sustainable harvest potential for commercially and recreationally valuable species has remained constant at about 20 million kilograms over the past five years. The potential for less valuable species is approximately 16 million.

The following sections outline the various fish habitat topics and the initiatives that have been taken to enhance resource supply. The future challenges for fish habitat management is discussed in the final section.



Streambank Rehabilitation

FISH HABITAT CONSERVATION

Conserving fish habitat and ensuring developmental and land use activities do not adversely impact on fish and fish habitat.

Birtle Fishway

Buffer Management Zone

INITIATIVES

1) **Environmental Impact Assessment.** Reviewed 1115 Environmental Act Licence applications and related impact assessments ensuring the principle of no net loss of the productive capacity of fish habitat.

2) **Guidelines**. Fisheries produced and distributed a ***"Pool and Riffle Fishways for Small Dams"*** booklet. The booklet shows techniques that provide fish passage at low head dams, ford crossings and stock watering dams.

3) In conjunction with Department of Fisheries and Oceans produced "***Manitoba Stream Crossing Guidelines*** – May 1996" for protecting fish and fish habitat in the design and construction of stream crossings. This was distributed to and made available to industries involved in constructing stream and river crossings.

4) Provided fisheries input into the ***Farm Practices Guidelines for Dairy Producers in Manitoba*** and the ***Consolidated Buffer Management Guidelines – Natural Resources.***

5) **Technical Assessment**. Provided input to Pine Falls Paper Company and Tolkol Inc. paper mills Environmental Effects Monitoring (EEM) programs. Participated in a review of international water management issues for Devils Lake Basin. Fisheries Branch participated as a member on the Technical Advisory Committee for the City of Winnipeg Combined Sewer Overflow and Ammonia Study and Churchill Weir Project. Involved on the International Red River Pollution Board.

6) Provided input into the development of the Environmental Effects Monitoring for metal mine liquid effluents.

FISH HABITAT RESTORATION AND ENHANCEMENT

Land use (land clearing, ditching, draining) and resource based activities (Hydro electric, forestry, mining) have damaged or destroyed fish habitat and affected fish production at all life stages. Programs are needed to rehabilitate and enhance degraded stream and river habitat.

Little Saskatchewan River Watershed

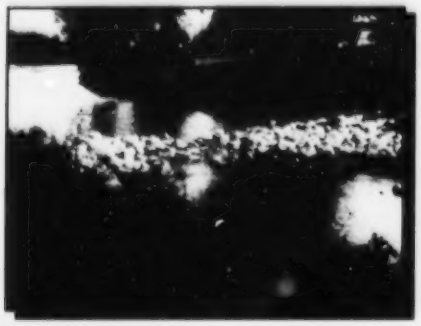
INITIATIVES

Dauphin Lake Stream Rehabilitation Program:
This program was the first watershed based approach to assess and address fish habitat issues. The program was initiated in 1992 and finished in 1997. The program involved a total of 19 nutrient reduction projects involving fencing, off-channel livestock watering sites and crossings, stream bank rehabilitation through resloping, revegetating and rock armouring. The Program also included 28 sediment reduction projects that resulted in the construction of 127 riffles and 495 metres of shoreline armouring.

Little Saskatchewan River Watershed Management – Fish Habitat Enhancement Program:
The Fish Enhancement Program in the Little Saskatchewan River Watershed established a multi-disciplinary watershed stakeholder committee in 1996 to deal with concerns over water quality and resulting negative impacts on fish, fish habitat and recreational opportunities as well as obstructions to fish migration. Surveys were conducted to provide current information on the river system and identify degraded, and non point source pollution sites that require action and rehabilitation. Since 1996, 13 priority projects incorporating a number of enhancement techniques such as, stream gradient control structures (riffles), bank resloping, revegetation, off-channel livestock watering sites, riparian fencing and controlled livestock crossings and relocation of winter corrals from river banks, were completed. A fish tagging study to track walleye movement and water quality studies were completed.

Initiated fish habitat management planning at the watershed level for the Seine and Upper Whitemud Rivers and Lake Manitoba east side tributaries from the narrows north. Physical inventories of watersheds funded through the Fisheries Enhancement Initiative were completed on the Pembina River, Cooks Creek, Netley Creek, Wavey Creek and Willow Creek.

FISH HABITAT RESTORATION AND ENHANCEMENT (Cont'd)



Sturgeon Creek

INITIATIVES

Lake enhancement techniques which included aeration, water level control and artificial spawning shoals were implemented on 15 lakes and reservoirs, predominately in western Manitoba.

Urban River and Streams: As a member of the Winnipeg Urban Stream Stewardship Council, facilitated and provided technical advise and financial support through the Fisheries Enhancement Initiative for the design and construction of riffles and stream bank stabilization on Sturgeon and Truro Creeks and habitat inventory and survey on Omands and Bunns Creeks.

FISH PASSAGE

Instream impediments to fish migration and movement such as dams and control structures obstruct spawning and migration runs. Fishways, using either weirs or baffles to reduce water velocities and create pools of slower water where fish can rest, enable fish to climb, through a series of steps, over or around obstructions.

INITIATIVES

Two fishways, a pool and riffle fishway around the Birtle Dam on the Birdtail Creek and a denil fishway on the Icelandic River at the Prairie Farm Rehabilitation Administration dam upstream of Arborg were constructed.

Plans have been completed for a denil fishway at Old Grant's Mill on Sturgeon Creek.

In cooperation with Fish Futures and Department of Fisheries and Oceans initiated the development of a brochure on the impacts of fish barriers and methods to provide fish passage.

Completed a pool and riffle fishway design for the Minnedosa Dam.

INSTREAM FLOW

Development over the past five years has increased the use and demand for water from the streams and rivers of Manitoba. These uses include water for industrial production, water for domestic purposes and, water for diluting and removing wastes.

INITIATIVES

A number of actions have been undertaken to ensure instream flow required to maintain fish and fish habitat is identified and protected:

INSTREAM FLOW (Cont'd)

Additional Water Usages

Instream Flow Studies

INITIATIVES

- A model was developed to determine minimum instream flows required to sustain productivity of intermittent streams where water flows only certain times of the year. This model is being used to establish instream flow reserves for fish and fish habitat on intermittent streams.
- Models are being tested as provincial standards for determining instream flow reserves on small and large permanent streams.
- An Instream Flow Incremental Methodology study of Assiniboine River has been initiated. This study will facilitate the designation of flow regimes necessary to sustain fish populations on a major large prairie river.

Manitoba joined the Instream Flow Council, an international technical support group of instream flow experts and is participating in the compilation of instream flow methodologies and protocols for protecting fish and fish habitat.

Participated on the Prairie Provinces Water Board Instream Flow Needs Committee to review and recommend instream flow methodologies suitable to protect fish in the Prairie Provinces.

WATER QUALITY

Water quantity and quality is critical to sustain aquatic processes including fish and the maintenance of fish habitat.

INITIATIVES

Pollution Monitoring, Guidelines and Restrictions: Although the contamination of fish in Manitoba waters by heavy metals does not appear to be a serious problem, Fisheries staff have continued to keep the public informed about safe levels of fish consumption.

Data compiled from a biannual cooperative study by Manitoba Conservation, the Department of Fisheries and Oceans and Hydro Quebec monitoring mercury in flooded lakes along the Churchill River Diversion and the Nelson River indicates that the mercury levels in fish are slowly declining and have or may soon reach background levels.

EXOTIC ORGANISM TRANSFERS

Potential impacts exist from the introduction and transfer of exotic aquatic organisms, including plants, on fish and fish habitat. Introduced or transferred aquatic organisms can affect the genetic integrity of native species, their habitat and the environment. Some aquatic organisms, like the zebra mussel, have the potential to cause millions of dollars of damage.

Wild Rice

INITIATIVES

With Saskatchewan, Alberta, Ontario and the Department of Fisheries and Oceans (Central and Arctic Region), Manitoba developed a risk assessment protocol for the transfer and introduction of non-native aquatic organisms. This protocol has been applied in Alberta and Manitoba, specifically with the introduction of Tilapia aquaculture.

In 1998 Manitoba closed its borders to the importation of angling bait leeches.

Results from an investigation of the impact of wild rice on fish stocks in west central Manitoba, was completed in cooperation with the Department of Fisheries and Oceans. The investigation suggests that wild rice can affect fish species composition in shallower parts of lakes.

Synthetic Aperture Radar (SAR) satellite imagery was used to determine if SAR could distinguish wild rice from other aquatic plants. Results indicated this method is particularly effective at distinguishing between wild rice and other aquatic plants when the wild rice has risen above the water surface. It also gives an estimate of stand density and potential harvest.

Literature and information that describes the risks and impacts associated with the transfer of exotics was disseminated.

LAKE STURGEON

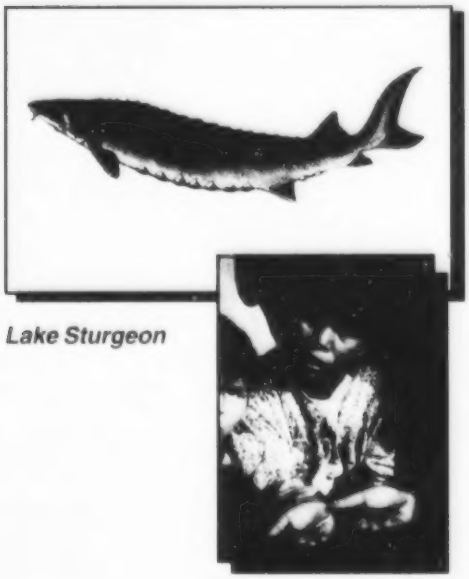
Lake Sturgeon have been extirpated from many areas of the province and are declining in many areas where they remain. To arrest and reverse this trend we need to protect and maintain sturgeon habitat and populations and where practical rehabilitate degraded habitats and depressed populations.

INITIATIVES

A provincial Sturgeon Management Strategy was updated in 1998.

With the support of Manitoba Hydro the facilities and expertise to spawn and culture lake sturgeon were developed.

LAKE STURGEON (Cont'd)



Lake Sturgeon

INITIATIVES

Supported an experimental re-introduction of Lake Sturgeon into the Assiniboine River at Brandon. During 1996 and 1997, 2000 sturgeon between 6 and 12 cm long were released. In 1998 and 1999, 20 were caught and released, some of which had grown to 50cm in length.

Participated with teachers, the Department of Fisheries and Oceans, Manitoba Hydro and the University of Manitoba, to develop "Sturgeon in the Schools" teachers guide for science curriculum Grades 2 to 5. The guide also included a video, "Life History of Sturgeon" and a poster, "Preserving the Historic Sturgeon".

In 1994 initiated a four year study on the Saskatchewan River sturgeon stocks with the Saskatchewan River Sturgeon Management Board (SRSMB). This board, acting in an advisory role to the governments of Canada, Manitoba, Saskatchewan and First Nations, is working to prevent further decline of the Saskatchewan River sturgeon population and to develop and coordinate a recovery plan.

FISH MANAGEMENT INFORMATION

Scientific research and effective and accessible information management systems are needed to support fish resource planning and decision making.

FIHCS

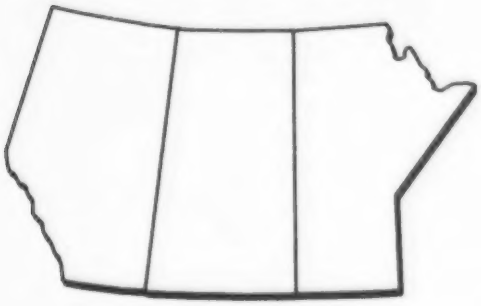
INITIATIVES

A database dealing with biological, chemical, physical and hydrological parameters for Manitoba waterbodies is compiled in the Fisheries Inventory Habitat and Classification System (FIHCS). Over the past 5 years data from an additional 300 waterbodies were entered.

Began assessing the value of a computerized Geographic Information System for use in supporting fisheries habitat issues and management decisions.

Developed the framework for a corporate database that would consolidate all fisheries databases and provide user-friendly access to the data.

FISH MANAGEMENT INFORMATION (Cont'd)



Memorandum of Understanding between Prairie Provinces

INITIATIVES

Coordinated biological inventories which included hydrological and physical assessments on:

- Four tributaries of the Red River: Rat, Plum, Morris Rivers and Joubert Creek
- Five watersheds east of Duck Mountains: Garland River, South Garland Creek, North Duck River, Sclater River and Pine River.

Began implementation of the Memorandum of Understanding Between The Governments of Canada, Alberta, Saskatchewan and Manitoba on The Prioritizing of Fisheries Science Activities in the Prairie Provinces signed in 1998. This MOU provides a process for integration of fish science activities that will result in research being directed at critical habitat and management issues in the Prairie Provinces.

FISH HABITAT EDUCATION

In order to protect, enhance and rehabilitate fish populations and fish habitat, the public and industry need to be aware of and knowledgeable about the value of fish habitat and the requirements to protect and maintain it.

Public Seminars

INITIATIVES

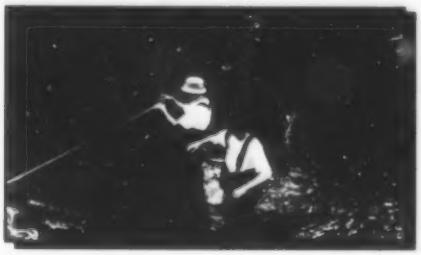
Provided information on the value and importance of fish habitat to various private groups.

Delivered public seminars on fishery programs and issues, including stream rehabilitation, fish habitat conditions and concerns.

Published a pamphlet outlining the procedures, issues and projects implemented on the Little Saskatchewan River watershed.

Prepared a pamphlet containing biological information on 38 Manitoba fish species for purposes of management development and restoration of fish populations and habitat.

FISH HABITAT EDUCATION (Cont'd)



Bunns Creek

INITIATIVES

Partnered with the Urban Stream Stewardship Council, the City of Winnipeg and Manitoba Environment. Provided fisheries component for stream workshops held on Truro, Sturgeon, and Bunns Creek.

Participated and provided technical advice for the Manitoba Envirothon, an Olympic style environmental competition for high school students.

THE FISHERIES ENHANCEMENT INITIATIVE

Through the creation of the Fisheries Enhancement Initiative Fund, fisheries staff work cooperatively with user groups to conserve and protect fishery resources. Since 1993 a portion of fishing license revenues has been available to fund projects that strengthen fish populations or improve fish habitat. An annual stamp is produced to promote the Initiative and is issued with all recreational, commercial and bait fishing licenses.

Riffle Construction

INITIATIVES

Since 1995, the Initiative funded 129 projects throughout Manitoba worth $1,629,854. Over 60% of the projects were carried out in the Western region.

The projects were carried out by organizations like the Conservation Districts, many Wildlife Federation Associations, Fish Futures, Swan Valley Sport Fishing Enhancement Inc., Dauphin Lake Watershed Management Board, Little Saskatchewan River Watershed Groups, Lake Manitoba and Dauphin Lake Commercial Fishermen's associations, Rural Municipalities, Towns, Duck Bay Community council; Warpath River Fishermen's association, cottage owner associations and urban stream committees.

The Fisheries Enhancement Initiative has invested funds in projects, which to date, can be described under four categories:

- Stream enhancement includes riffles and pools, stream bank rehabilitation and fishways.
- Lake enhancement includes shoals, lake aeration and shoreline stabilization.
- Population management includes screening, stocking, tracking, hatcheries and rearing ponds.

THE FISHERIES ENHANCEMENT INITIATIVE (Cont'd)

1999 Fisheries Enhancement Stamp

INITIATIVES

- Public education includes projects that sensitize and inform the public about fish, their habitat and fisheries issues.

Some of the funds are used for program promotion: the stamp painting competition and artist's prize; production of the FEI stamp; production of the limited edition print; production of a brochure, poster and annual report; and advertising.

FISH STOCKING

The primary goals of Manitoba's fish stocking program are to develop, maintain, or restore angling where a supply/demand imbalance exists; to diversify angling opportunities with emphasis on trout stocking; and, to help maintain and restore both recreational and commercial fisheries.

Walleye

Lake Whitefish

INITIATIVES

Since 1994 Fisheries Branch has stocked over 440 million fish of 14 species to enhance sport, commercial, and domestic fisheries.

About 10 lakes were stocked annually with newly hatched walleye and whitefish fry to maintain and enhance stocks used by commercial and domestic fishermen.

Approximately 70 sportfishing waters were stocked with a variety of fingerling and pan-size trout; another 50-odd sportfishing waters were stocked with walleye fry; and a handful of sportfishing waters were stocked with pike, yellow perch, smallmouth bass and muskellunge.

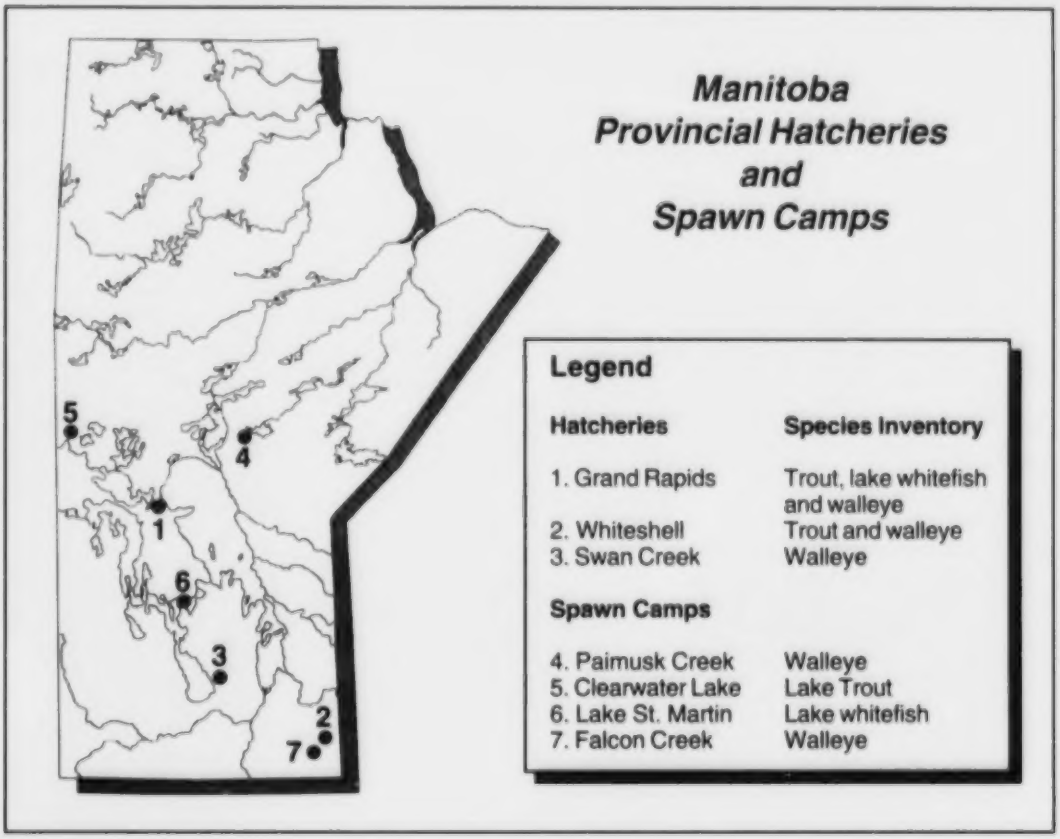
Lake sturgeon have been stocked in both northern and southern waters where the populations have been reduced or extirpated.

Stockings of non-indigenous species to waters where they could establish self-sustaining populations, e.g. smallmouth bass, continue to be carefully restricted to protect natural ecosystems and their biodiversity.

Fisheries Branch has also assisted over 20 volunteer groups including commercial and recreational fishermen in walleye enhancement efforts including egg collection and hatchery construction/operation throughout the province.

Table: Numbers and species of fish stocked in Manitoba, 1994 to 1998.

Categories	1994	1995	1996	1997	1998
Walleye	50,900,000	50,800,000	53,800,000	69,300,000	58,300,000
Trout/Charr	1,085,317	1,209,149	1,273,900	1,406,200	1,197,040
Northern Pike	3,848,000	5,300,000	2,670,000	3,290,000	259
Lake Whitefish	42,000,000	6,700,000	35,500,000	35,000,000	18,000,000
Lake Sturgeon	1,025	—	3,200	2,900	472
Yellow Perch	1,600	6,027	20,109	3,870	42,072
Smallmouth Bass	—	—	—	—	76
Muskellunge	—	—	—	12,000	—



CHALLENGES

Fish habitat is of critical importance to the supply of fish for the use and enjoyment of Manitobans. Overharvest and disease can also affect the supply of fish. Habitat maintenance, restoration and enhancement coupled with quotas, limits and conservation programs attempt to ensure that there is enough fish to satisfy the demand for fish. The main challenges will continue to be to develop means of controlling or moderating the factors that limit harvest potential while improving and enhancing fish habitat.

Major Themes

1. Water Management in Southern Manitoba

- As the demand for water increases in areas of the province where the availability of freshwater is limited, water allocation to maintain aquatic ecosystems and the fish within them will be required.

- The methods and models necessary to quantify instream flow requirements to maintain fish within small and large permanent streams have to be developed and refined.

2. Frameworks and institutions are required for system level planning and management of natural resources, including fish.

3. Expansion of the watershed approach to fish habitat management to other watersheds in Southern Manitoba.

INTRODUCTION

To maintain healthy fisheries that will meet the subsistence, recreational, and income requirements of Manitobans, Fisheries Branch manages harvest of Manitoba's fisheries resources under the following principles:

Long-term Biological Sustainability

Healthy and viable fish stocks are essential to successful commercial and recreational fisheries. Only fish over and above those needed to maintain a particular stock of fish are considered a harvestable surplus available to recreational and commercial fishermen provided the priorities of use that have been established are followed.

Allocation

A priority of allocation among uses and user groups has been established as follows:

- Fish stock conservation;
- Aboriginal domestic fishing harvest;
- Resident recreational angling opportunity; and
- Commercial fishing harvest, including commercial net fishing, commercial recreational fishing, bait fishing, and fish farming.

Access rights or opportunities afforded by commercial use of fisheries will be allocated according to the value of benefits generated to: 1) local, 2) regional, and 3) provincial economies.

Established commercial operators are recognized as having proprietary rights in **access to**, **not ownership of**, the fisheries resource. Commercial operators who have access rights to the resource will be recognized as having developed tenure.

Economic Sustainability

Management actions are directed at improving the long-term economic efficiency of commercial net and recreational fisheries, recognizing that local economic benefits and local involvement have first priority in determining the value of the fishery. However, the value of "social" commercial fisheries and "in kind" economic benefits from resident recreational angling fishing (i.e. willingness to pay) are also recognized.

Shared Responsibility

Fisheries managers recognize the need to involve resource stakeholders, in a spirit of partnership and open cooperation to work towards responsible stewardship, conservation, enhancement and rehabilitation of Manitoba's fisheries resources. This will be accomplished by sharing the responsibility of developing and implementing rational and enforceable management plans that ensure the sustainability of the resource, with users and user groups.

Integrated Resource Management

There are numerous agencies, programs, and government departments that both affect and are affected by Manitoba's fisheries and fisheries management activities. Integrated resource management refers to the process of ensuring that all are incorporated into the assessment of management issues and the decision-making process. Fisheries managers have the responsibility for liaising with these agencies and departments to encourage them to develop programs that are consistent with, or complement, the goals, objectives and principles of the Department of Conservation for Manitoba's fisheries.

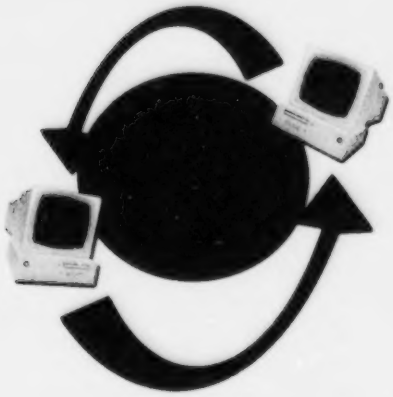
EDUCATION

Keeping people informed about fisheries resource management and conservation is an ongoing role for Fisheries Branch.

The Branch has looked at different mechanisms to disseminate fisheries information to the general public in the most efficient and cost effective manner, and initiated contact with Manitoba Education to develop resource tools which could be incorporated into the "new" science curricula being developed in Manitoba as part of the Pan-Canadian Program.

In 1998, the Branch developed a Manitoba Fisheries Sustainable Development Educational Internet website to:

- provide general fisheries information to the public, and
- assist teachers in integrating the theme of sustainable development into the "new" science curricula.



Fisheries Educational Web-site

The web-site introduces environment-economy-society aspects of fisheries and includes an "Education" section where teachers can "click on" a particular grade for specific exercises. Branch staff, in cooperation with Manitoba Educators, have developed exercises for grades K through 4 which parallel science curricula development. In the future, the Branch will continue to work with Manitoba Education to develop new exercises for higher grades as grade specific outcomes are determined.

Promotion of Manitoba's fisheries and how to help manage them was accomplished through the production of complimentary items. Barbless fishing hooks in packages explaining the benefits of their use were used as educational tools by Natural Resource Officers and Fisheries staff. Length stickers for boats were distributed to promote measurement of fish by length rather than weight to encourage catch and release fishing. MMDA, Fish Futures Inc. and MWF, with support from the Department, produced an informational brochure entitled "Get Hooked on Fishing in Winnipeg." This brochure is available to the public and provides information on access to sites along the rivers, fishing techniques, species presence and proper fish and food handling techniques.

Staff promoted Manitoba's fisheries and how they are managed, at industry shows including Mid-Canada Boat Show, mall events, festivals, derbies, club meetings, and school classes. The focus of this information at such events was the Fisheries Enhancement Initiative, Family Fishing Weekend and regulatory changes for the coming year.

Summer Active Festival

INTRODUCTION

Recreational and Tourism Fishing

Recreational fishing has evolved from past subsistence fishing activities. With industrialisation, the need to fish for food became less critical. Consequently, over the last 50 years, fishing for the enjoyment of the activity and the quality of the experience has become more important.

Regulations have also changed with an increasing emphasis on conservation as the number of anglers grew and access to fish became easier. For example, prior to 1948 the allowable daily creel limit was 15 with a possession limit of 30 fish, all of which could be walleye. This limit has been reduced over the years where in 1999, the possession / daily creel limit for walleye, pike and lake trout limits are six, six and three respectively.

These controls on recreational fishing were initiated based on anglers', tourism operators' and managers' concerns for fish stock conservation. These regulations protect the resource and quality of the angling experience while allowing the harvest of some fish.

The recreational fishing industry also contributes significantly to our economy with $28 million in foreign currency from tourism in 1995 and a significant internal economy with $50 million in direct expenditures by residents.

There has been, however, a decline in recreational fishing participation over the last 20 years in Manitoba and many other jurisdictions. This has resulted in a 26% decline in resident angling expenditures from 1990 to 1995. It is believed that competition with other leisure activities, urbanization, changing family structures and less discretionary time and money has combined to reduce participation. However, this decline in participation in the 1990's may be ending as angling licence sales rose from a low of 155,000 in 1996 to 175,000 in 1998, the highest total in the 1990's.

OBJECTIVES

Objectives of the recreational fishing industry as a whole are:

1. To maintain and enhance appropriate angling opportunities for Manitobans.

2. To establish and maintain a viable commercial angling industry wherein participants can earn a reasonable return on their investment and time with limited social disruption.

Towards meeting these objectives, Fisheries Branch operates under the following principles:

1. Providing anglers with diverse and available angling opportunities is a high priority. The option of limiting harvest rather than limiting opportunities is to be used whenever possible. The technique of catch and release fishing allows regulation of harvest without closing a fishery.

2. Resident recreational angling provides a measurable "in kind" economic benefit to Manitobans (e.g. willingness to pay) as well as supporting a significant retail sales industry. This benefit should be taken into account when making allocation decisions.

Recruitment for the Future

STATUS AND TRENDS

Angler Profile

The decline in angling licence sales continued from 1994 to 1996. In 1997 licence sales increased slightly over and above the increase generated by the introduction of a new Senior Conservation Licence for Manitobans 65 years and older. In 1998 licence sales increased to a ten-year high of 175,000. Preliminary statistics indicate that licence sales are also strong for 1999. Over this period of time, the decline and subsequent increase in licence sales has been primarily among resident anglers. Non-resident licence sales have shown a slight increase over the past five years. Presently 62% of residents and 79% of non-residents purchase Conservation Licences.Non-resident Canadian anglers came primarily from Saskatchewan, Alberta and Ontario. Non-residents from outside Canada were primarily from the north central United States. Of non-resident anglers interviewed in 1995, 86% said their main reason for coming to Manitoba was to fish.

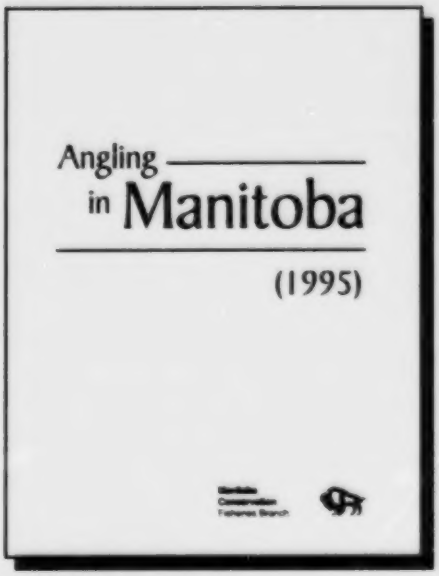
Angler Effort

Based on the 1995 national angling survey, licensed anglers in Manitoba fished a total of 2.2 million days in 1995, down from 2.4 million days in 1990. Residents fished an average of 16 days in 1995, while non-residents fished an average of 7 days.

Resident anglers concentrated their efforts in the southern part of the province and in the Whiteshell/Nopiming area, while non-residents preferred to fish in the northern regions, primarily during May, June and July.

Harvest

Sport fishermen caught an estimated 8.69 million fish in 1995, down from 11.3 million fish in 1990, but kept only 2.3 million fish, for a national high release rate of 74%. Walleye accounted for 43% of all fish caught and 56% of all fish kept. Pike and perch were the next two most important species for anglers. Resident anglers accounted for 66% of the total catch and 82% of the total harvest. The average catch per resident angler decreased from 1990 to 1995 but increased slightly for non-resident anglers.



1995 Anglers Survey

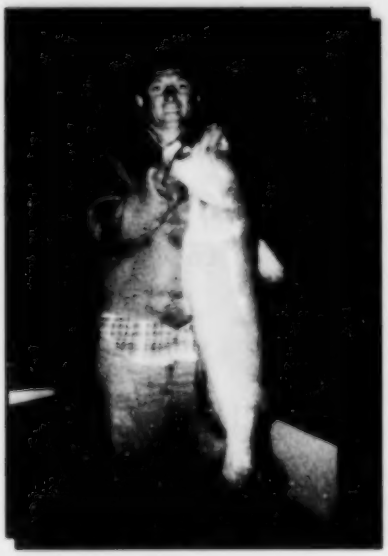
Spending

Of the $132 million spent by anglers in 1995, $78 million were expenditures directly attributable to recreational fishing to cover food, lodging, fishing supplies and services, and transportation costs. Direct expenditures were down from $91 million in 1990. The remaining $54 million (down from $57 million in 1990) was spent on major purchases such as boats, motors, vehicles, and camping equipment. Resident anglers contributed 63% of the total direct expenditures, with each angler spending an average of $397 over the year compared to $784 for non-residents. The decline in expenditures from 1990 to 1995 can be attributed to resident anglers as expenditures by non-residents showed a slight increase over the same period.

General Trends

Through the 1990's until 1997, angling licence sales declined although the proportion of conservation licence sales increased until 1997 and have since remained constant. From 1990 to 1995, direct expenditures per resident angler decreased, while they increased for non-residents. Based on release rates, anglers appear to be becoming increasingly conservation-oriented. When asked why they fish, anglers responded that most important reasons were for relaxation and to enjoy nature. Catching a trophy fish and a sense of achievement were the least important reasons for fishing.

Northern Lake Trout



Red River Catfish

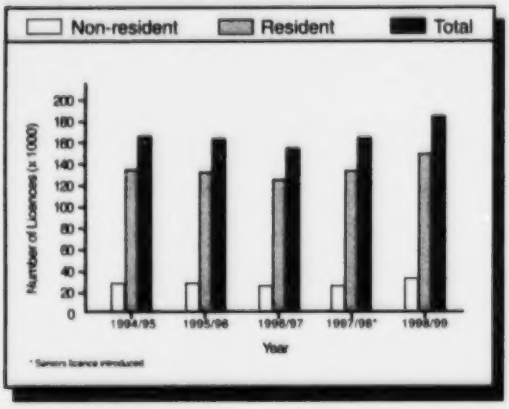
Commercial Recreational Fishing

The number of licensed tourism operations that rely primarily on fishing have not increased significantly over the past five years however a number of operators have physically improved their facilities and expanded their businesses. The industry continues to rely on non-resident anglers as their primary source of revenue. The 1995 Angling Survey showed non-resident angling to have contributed $27 million in direct expenditures to the economy of the Province.

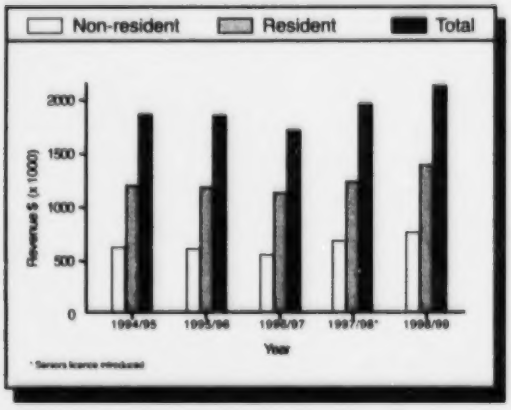
The industry continues to show leadership in fisheries conservation and uses Manitoba's approach to recreational fisheries management as a marketing tool in international markets. International economics have improved somewhat over the latter part of this report period and the industry appears to be showing signs of growth. Non-resident licence sales have increased from five years ago and the 33,000 licences sold in 1998 were a ten-year high.

ANGLER PARTICIPATION

The decline in angling licence sales showed signs of ending in 1997 when a small increase in sales occurred. This was followed by a significant increase in 1998 and preliminary statistics for 1999 are also encouraging. This shift in sales may be the result of several factors – better summer weather over the past three years, a proactive approach by the department in encouraging angling, particularly through the urban angling program and increased partnerships with industry to promote angling.



Angling Licence Sales



Angling Licence Revenues

INITIATIVES

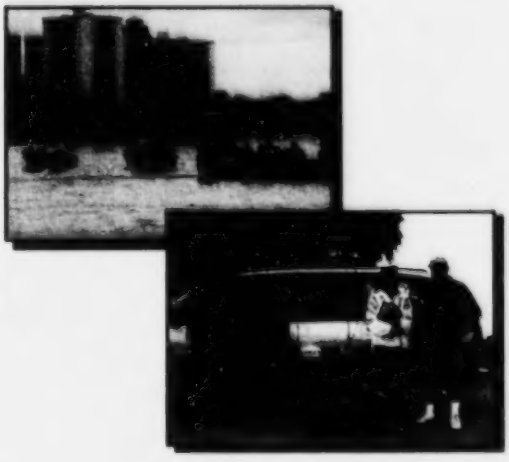
1. Licence sales will continued to be monitored. The planning process has started to repeat the 1995 Angler Survey in 2000. Emphasis will continue to be placed on fishing as a recreational activity that does not need to be expensive and on the availability of angling opportunities in or near urban centres. Other private agencies have expressed interest in joining with the department to promote angling as an alternate activity for "at risk youth" and these opportunities will be investigated.

2. Manitoba's annual Family Fishing Weekend (held during the second weekend in June) allows the public to recreational fish without a licence. The purpose is to encourage more people to experience fishing as a healthy enjoyable activity that they can share with their family and friends. Free entry to Manitoba's provincial parks was also allowed as an additional incentive to encourage the public to experience our natural resources. Manitoba Conservation is encouraging individuals and groups to participate by going fishing, organizing a fishing instruction seminar, cleaning up a local river or lake, or holding a fish barbecue.

3. Over the past five years, as a result of declining angling licence sales, the Department has facilitated the development of an "Urban Sport Fishing Plan" with key resource user groups, City of Winnipeg and other provincial agencies. The plan attempts to implement a coordinated action plan that would help Manitoba realize the economic and social benefits that could arise from a more complete, responsible use of the recreational angling potential of Winnipeg's rivers and streams. Through the cooperative efforts of these agencies, an " Urban Angling Partnership (UAP)" committee was formed who would oversee the implementation of these activities.

ANGLER PARTICIPATION (Cont'd)

Teaching Anglers the Basics



Funds Raised for Inner City Youth Fishing Program

INITIATIVES

The goals of the Urban Angling Plan plan were to:

- provide quality recreational angling and fish viewing opportunities for residents of Winnipeg.
- assure that fisheries resources (including habitat and fish stocks) are present in sufficient quantity and quality to sustain an urban sport fishery into the future.
- increase tourism related revenue from the promotion of a world class fishery in Winnipeg.

Learn to Fish Clinics

The clinics, offered through the City of Winnipeg Leisure Guide Program, were co-sponsored by Mid-Canada Marine Dealers Association (MMDA), Manitoba Wildlife Federation (MWF) and the Department. Evening clinics were designed to expose people to the world class fishery located along the Red and Assiniboine rivers, teach basic angling skills, and have participants leave with a better understanding of the fisheries resource around them. Since the inception of this program, enrollment has steadily increased each year. In 1999, over 200 participants registered for the program.

Fish Winnipeg Media/Corporate Challenge

New for 1998 was the inaugural "Fish Winnipeg Media/ Corporate Challenge" which was co-sponsored by Fish Futures Inc., The Complete Angler, City of Winnipeg and the Department. The goals of the challenge were to: 1) introduce Winnipeg's media and corporate community to the urban fishery, 2) promote angling as a healthful form of outdoor recreation and 3) raise funds to be targeted at Youth at Risk Fishing Programs. The event raised over $7,000 that was used to take 200 inner city youth fishing throughout the summer in a kids' fishing van. In 1999, the event was expanded and revenues increased to $9,000. At program completion, over 400 children had taken advantage of this program.

Fish Festival

Urban Stock Monitoring

Education and Enforcement

INITIATIVES

Winnipeg Fish Festival

The Winnipeg Fish Festival, held at the Forks in the heart of the City, provides residents and visitors to Winnipeg with an opportunity to explore the recreational fishing community. The Department, working in cooperation with MMDA, MWF and City of Winnipeg, has co-sponsored this event for the past five years and continues to encourage festival expansion. The event offers participants with a number of displays and activities including: Mainstage Seminars, Fish Filleting Demonstrations, Kids' Educational Activity Stations, Casting Lanes, etc. Event attendance has steadily increased from approximately 2,000 in 1997 to 5,000 in 1999.

Urban Access Development

A new initiative to increase urban fishing access sites along the Red and Assiniboine was introduced in 1998. The goals of the project were to: 1) provide safe and easily accessible riverbank fishing areas, 2) promote the underutilized recreational angling potential of Winnipeg's rivers, and 3) provide visitors to Winnipeg with facilities to enjoy and participate in the fishery. Fish Futures Inc. and MWF, in consultation with the Department, secured funding in 1999 to develop these sites and work will commence in the fall of 1999.

Urban Stock Monitoring

As part of the Department's mandate to manage the fisheries resource for the greatest benefit to all Manitobans, an urban fish stock monitoring program was initiated in 1995 along the Red and Assiniboine rivers within Winnipeg. This program was designed to develop a long term trend over time database to be used in determining relative fish abundances.

Red River Patrols

The Department secured a staff position in 1997 whose responsibilities were to: inform the general public on urban fishing activities through direct distribution of informational materials and participation at events relating to urban fishing, and maintain a positive enforcement presence on Winnipeg's rivers and streams.

CONSULTATION AND PARTNERSHIPS

User involvement has played a major role in the development of angling regulations and other aspects of recreational fisheries management. Consultation with users has allowed the introduction of new angling regulations in a manner that has caused least disruption to anglers and over the past five years changes have been made to simplify and reduce angling regulations.

Consultation and Partnerships

INITIATIVES

1. Consultation will continue and the base of users involved will be expanded when possible. The regulation review process was altered to allow for more input from users. Because of its success, changes made to the process will be retained.

2. The Branch continues to encourage resource users to participate in management of recreational fisheries. Lake-specific management plans developed in consultation with local users have been instrumental in introducing new and innovative changes to regulations pertaining to angling on various lakes. Private organisations such as tackle retailers and manufacturers, and groups including Swan Valley Sport Fishing Enhancement Inc., Intermountain Sport Fishing Enhancement, Fish Futures Inc., Manitoba Wildlife Federation and associated clubs, Kississing Lake Management Committee, Clearwater Lake Advisory Committee, Rocky Lake Management Committee, Dauphin Lake Advisory Board, and the Manitoba Lodge and Outfitters Association have worked with the branch to co-operatively manage fishery resources in various regions. Swan Valley Sport Fishing Enhancement Inc., Intermountain Sport Fishing Enhancement and Fish Futures Inc. hold their annual banquets to raise funds for habitat improvement, fish stocking, children's seminars, the urban angling program and other fisheries research and management programs.

3. The Manitoba Anglers' Guide has being produced in co-operation with Fish Futures Inc., since 1989. The contract continues to serve as a means of fund raising for Fish Futures, a non-profit organisation dedicated to fisheries enhancement and public education, while allowing production of the guide at a saving to the branch. Comments and recommendations gathered through the public consultation process are also used to enhance the guide.

FISHING DERBIES

Fishing derbies continue to be popular and approximately 125 licences are issued annually. Fisheries Branch, in consultation with competitive fishing event (CFE) organisers and other fisheries interest groups, developed guidelines for CFE's in 1996 to assist organisers and to ensure that events are operated in a manner that minimizes mortality. Licences are required for any event with 25 or more participants. The licence is free and, depending on the type of event, may contain specific conditions.

INITIATIVES

The Department will continue to monitor CFE's and consult with organisers and other users regarding conditions under which they will operate. A review of CFE guidelines will occur in the next five years to ensure that procedures remain up-to-date with changing angling regulations and the needs of CFE operators. As before, consultation will be a key factor in the review.

NEW CANADIANS

The largest single recreational fishery in Manitoba, the Red River, is used by many new Canadians. Often, English is not their language of preference.

INITIATIVES

Special efforts continued to provide information on angling regulations to new Canadians. A number of appearances were made on the local ethnic radio station, CKJS, and some handouts were prepared for distribution by district Natural Resource Officers. The Branch initiated an ethnic-specific marketing strategy to promote recreational angling as an alternative leisure activity for families to enjoy. The pilot project was implemented into the Fillipino community which represents one of the largest ethnic populations in Winnipeg. The work accomplished under this program has created positive in-roads into Winnipeg's diverse ethnic community. Seminars are offered annually in English language classes to make new Canadians aware of Manitoba's angling regulations.

CONSERVATION

The Branch promotes responsible use and conservation of recreational fisheries as improved technology and greater access for anglers place increasing pressure on limited fish stocks.

INITIATIVES

In maintaining the responsible use/conservation objective, a number of significant angling regulations were introduced in the past five years.

- All lake sturgeon caught by angling must now be released.
- All channel catfish over 65 cm (24 in) must now be released.
- All walleye, pike and lake trout larger that the set maximum size limit for that species must now be released in the Northwest and North Central Divisions on High Quality Management Waters.
- Special angling regulations were implemented for the Little Saskatchewan river system to enhance and protect walleye.
- The creel limits for walleye/sauger were lowered to four on the Red River and the Winnipeg River below the Pine Falls generating station and anglers may now only keep one walleye over 70 cm (28 in) per year from each of these waters.

CHALLENGES

During the next five years, Fisheries Branch will continue to develop programs and regulations designed to improve angling quality by:

- balancing harvest with fish supply,
- providing more angling opportunities, particularly in areas where demand greatly exceeds supply,
- making changes in allocation of fish resources for the benefit of all fisheries.

Goals and challenges for specific aspects of the recreational fishery are highlighted.

Competitive Fishing Events (CFE's)

Guidelines and permit conditions for CFE's will be reviewed in consultation with users.

Angling Regulations

The Department will continue to review angling regulations with the intent to reduce and simplify existing regulations and yet maintain the integrity of the resource. In consultation with users, attempts will be made to apply existing, common regulations over larger areas, thereby reducing the number of individual lake regulations.

Urban Angling Partnership

The Department will continue to work with its urban angling partners to increase the quality of life for residents of Winnipeg and to develop the economic potential of Winnipeg's urban recreational fishery through the promotion, enhancement and development of well thought out sustainable urban angling programs and opportunities.

The Tourism Industry

Fisheries Branch will continue to be an active participant in the Tourism Licence review process with the intent of contributing to LAC policy development and providing consistent responses to applications. The Branch will consult with the Manitoba Lodges and Outfitters Association (MLOA) regarding allocation, regulations, resource management, licensing and other fisheries related matters that may impact the industry. The Branch will provide informational and educational material, if available, to the industry or individual operators upon request.

Public Involvement

Communication and consultation with Manitoba's fisheries users and user groups will continue to be an important tool in clarifying allocation priorities, developing relevant fisheries guidelines, and enacting angling regulation changes.

Education

Both general information on Manitoba's fisheries and new initiatives or changes in the recreational fishing program will continue to be publicised. Information will be developed and made available to the public and Fisheries Managers, in the form of various print media including the Anglers' Guide, Fisheries Fact Sheets, pamphlets, newsletters, papers, magazines and an educational website. Angling promoters/educators in print, TV and radio will also be involved in order to effectively educate anglers. Direct contact with users at events such as trade shows, and with user groups through presentations and newsletters, will also be important tools in angler education.

Stocking

The Department will continue to use the Stocking Strategy as a basis for stocking fish in Manitoba. The Branch will make available to the public information on the stocking program and communicate with users to determine demand for stocking and develop a program that takes into account available resources.

Angler Survey

The Department will again participate in the national recreational angling survey in cooperation with federal and other provincial jurisdictions.

INTRODUCTION

The first commercial net fishing in Manitoba occurred in 1872 on the Little Saskatchewan River (Dauphin River). The operation was short lived due to the lack of efficient transportation and competition from subsistence fishing in the Red and Assiniboine rivers.

With settlement of Icelandic immigrants at Gimli in 1875, the foundation of Manitoba's commercial net fishing industry was established. The first successful commercial operation was recorded in 1882 when one sail boat operating on Lake Winnipeg marketed its catch in Winnipeg. Public concern about conservation prompted the first regulations to control fish harvest in 1892. By 1893, there were 13 steam tugs and 30 sail boats, employing 140 men and harvesting more than 1.4 million kilograms of fish annually.

By 1897 commercial operations on lakes Manitoba and Winnipegosis commenced. In northern Manitoba as transportation developed, so too did commercial fishing operations. Shortly after 1900, commercial fishing commenced on several lakes near The Pas including Cedar Lake.

By the 1920's gasoline engines replaced sail power and in the 1950's diesel engines and net lifters were first used in larger fishing boats. Likewise, tractor trains replaced horse drawn trains in winter fishing operations. These technological advancements increased the efficiency of the operations, speed of transportation and allowed more fish to be shipped fresh to market.

In 1969 the Freshwater Fish Marketing Corporation (FFMC) was established as the single marketing agent of fish to stabilize the industry and maximize income to fishermen. The industry now employs about 3200 people, fishing in over 300 lakes and producing about 13.5 million kilograms of fish annually. The initial focus on whitefish has been replaced by the currently more valuable walleye (pickerel) and sauger stocks. The landed value of fish to the fishermen has been $20 to $25 million per year. Most fish is sold to export markets, providing $30 to $40 million annually to Manitoba's economy.

Lake Winnipeg Sail Boats

Fish Marketing

Since 1969, the Freshwater Fish Marketing Corporation (FFMC), a federal Crown corporation, has had exclusive jurisdiction over export and interprovincial sales of commercially caught Manitoba fish under the *Freshwater Fish Marketing Act*, 1985. The Corporation was established to ensure fishermen received a reasonable and fair return for their efforts and investment and to maximize economies of scale through "single desk marketing" of fish.

Manitoba has jurisdictional authority for fish marketed within the province of Manitoba under *The Fisheries Act* (Manitoba) and regulations under that Act. With the exception of fish marketed directly from fishermen to consumers within the province of Manitoba, legislation recognizes the FFMC as the single desk marketing agency for commercially harvested fish in Manitoba.

OBJECTIVE

The principal objective of commercial fisheries is:

To maintain a viable commercial net fishing industry wherein participants can earn a reasonable return on their investment and time, with limited social disruption.

In stating this objective, Fisheries Branch recognizes that:

1. For the industry to be economically viable, individual operators should be able to earn an income comparable to that received by their counterparts in other resource harvest industries.

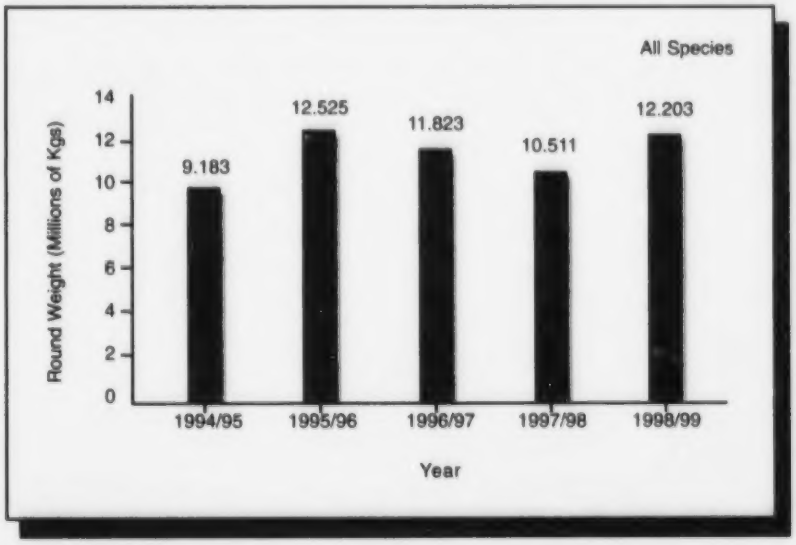
2. A reasonable wage provides incentive, encourages fishermen to reinvest in their business, and in the long run, strengthens their commitment to fishing.

3. In some communities, commercial fishing is the only economic activity available.

4. Many fishermen feel that maintaining the opportunity to fish is just as important as the money earned.

5. For many communities, commercial fishing helps maintain and reinforce family ties and traditions, and therefore is important for social and cultural reasons.

6. Fish are a public resource maintained by public funds; therefore, some of the benefits gained through management of the resource should return to the public.



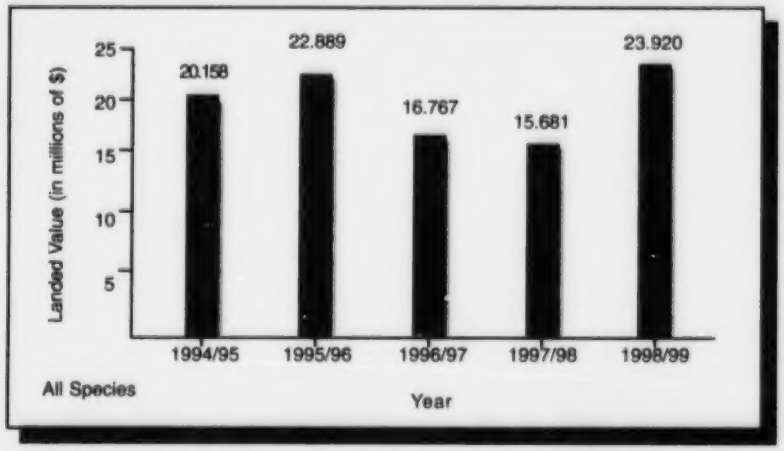
Commercial Fish Harvest

STATUS AND TRENDS

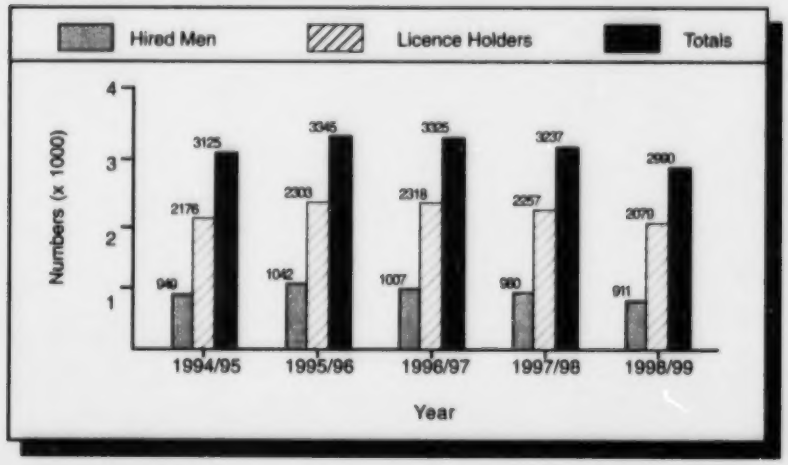
The commercial fish harvest has generally increased over the past five years, from 9.2 million kilograms in 1994/95 to 12.2 million kilograms in 1998/99. Approximately 67% of the catch is made up of walleye, sauger, whitefish and pike. On average, the Manitoba fish harvest represents a minimum of 65% of the Freshwater Fish Marketing Corporation's supply, most of which goes to U.S. markets.

Gross revenues to fishermen have fluctuated between a low of $15.7 million in 1997/98 to a high of $23.9 million in 1998/99. Manitoba commercial fishermen received 70% of gross revenues for all fishermen selling through FFMC during that time period. Walleye/sauger sales accounted for 74% of the landed value to Manitoba fishermen. Walleye/sauger continue to be the economic mainstay of Manitoba's commercial fishing industry.

The number of people employed (licence holders and hired men) in the commercial fishery has averaged around 3200 over the past five years, with a slight decline due the 3-year open water closure of the Cedar Lake commercial fishery.



Commercial Fishing Gross Revenues



Employment Statistics

LAKE WINNIPEGOSIS

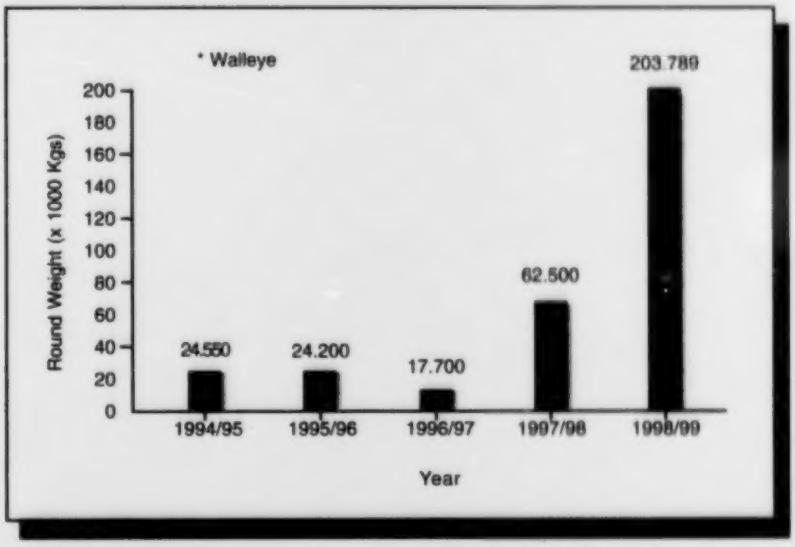
The summer fishery continues to operate with 32 licensed fishermen holding 116 QE's of 2,270 kg (5000 lbs) and the winter fishery operates with a maximum of 174 licences. Recent increased walleye production arises primarily from a strong 1995 year class. This production still represents a small fraction of the 450,000 kgs of walleye that a rehabilitated Lake Winnipegosis is expected to produce. Winter production is traditionally dependent upon mullets with winter perch seasons contributing relatively low production and low participation.

INITIATIVES

An objective, third party review was undertaken in 1998 and a report entitled "A Third Party Review Of Lake Winnipegosis Commercial Fishery Management Issues" was prepared. The report identified two options:

- **"Unilateral/Drastic"** action by the Minister of Conservation resulting in: complete closure of all commercial fishing, 2) restrictions on spring spawning harvests by all fishermen, 3) cormorant control, 4) walleye stocking and 5) habitat monitoring/enhancement, or
- **"Multilateral and Moderate"** action via the formation of a stakeholders management "authority" that would have the stakeholders determine what level of action was required on each element listed above. Unilateral action would not take place provided the stakeholders made sufficient progress within five years.

The Department has undertaken to re-structure the existing advisory board into a management advisory board with broader representation, that will make recommendations on key elements of a rehabilitation plan with a five year time line.



Lake Winnipegosis

LAKE WINNIPEG

A eight year decline in pickerel/sauger catches from 1989 to 1997 caused concerns that the stocks had been fished beyond sustainable levels. The three species quota (for whitefish, pickerel and sauger) was being high graded by fishermen to produce more of the higher valued pickerel/sauger, placing undue pressure on these stocks. The total three species quota in existence far exceeds a sustainable pickerel/sauger yield. Whitefish production in the north basin during the 1998/99 winter season was low and the department is concerned about the apparent lack of abundance. Reduced mesh sizes, whitefish roe fisheries and bushing may all be contributing to reduced whitefish production. Prices for whitefish have recently been increased by the FFMC and this should encourage more effort and deliveries directed at whitefish. Pickerel/sauger production increased in 1998 and this trend is continuing in the spring of 1999 almost to average historical yield levels.

Fish transport boat on Lake Winnipeg

INITIATIVES

An "independent third party" review of Lake Winnipeg commercial fishing issues was conducted over the winter of 1995/96 and recommendations were released in May, 1996. Department staff then met with north basin fishermen in a series of community meetings to attempt to resolve the issue of capping pickerel/sauger harvests, regulatory fishing lines and mesh sizes. Commercial fishermen opposed the capping of pickerel/sauger harvests on individual quotas and in 1997 management adjustments were initiated on Lake Winnipeg to address the issue of sustainability. These adjustments have been modified since 1997 and now currently are;

- staggered spring opening dates in the north basin, channel and south basin of the lake based on completion of spawning pickerel.
- retirement quotas were reduced to a maximum of one per retired fisherman and line changes were deferred until the issue of reduced harvest pressure was addressed.
- to address issues of fairness on the lake the whitefish fleet quota's pickerel/sauger cap was increased from not more than 3,200 kgs of pickerel and sauger to 4,550 kgs for each 15,880 kg "whitefish fleet quota" in 1999.

Further discussion within the department indicated that recommendations to deal with the remaining skiff fishery issues should be based on the principles of: 1) Conservation/Sustainability and 2) Fairness amongst fishermen.

LAKE MANITOBA SMALL MESH FISHERY

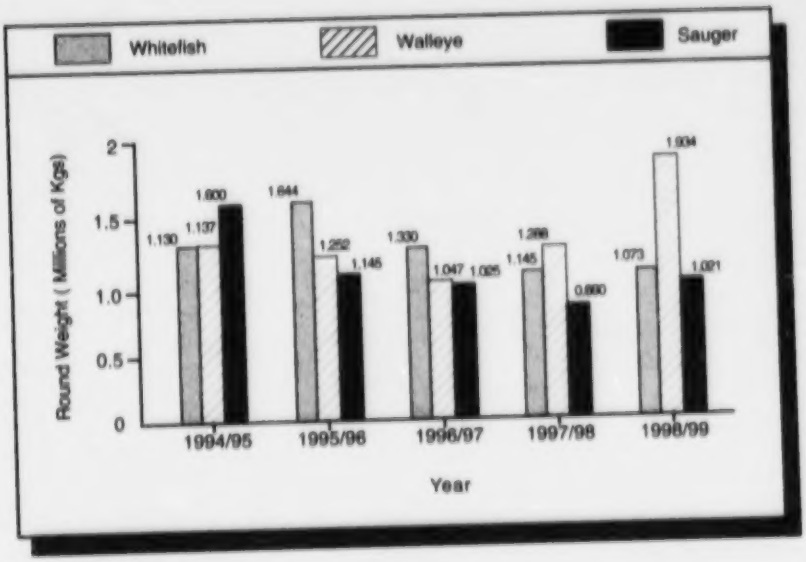
The 3" perch fishery was introduced in 1985 on Lake Manitoba. The fishery has operated from January to March and has harvested significant amounts of sauger and perch in the south basin and pickerel in the north basin.

Production of quota species (pickerel and sauger) increased in the first few years but has dropped to pre-1985 levels. This has been most significant in the South Basin. While pickerel production has been less impacted than sauger, stocks are dependent on small, immature fish.

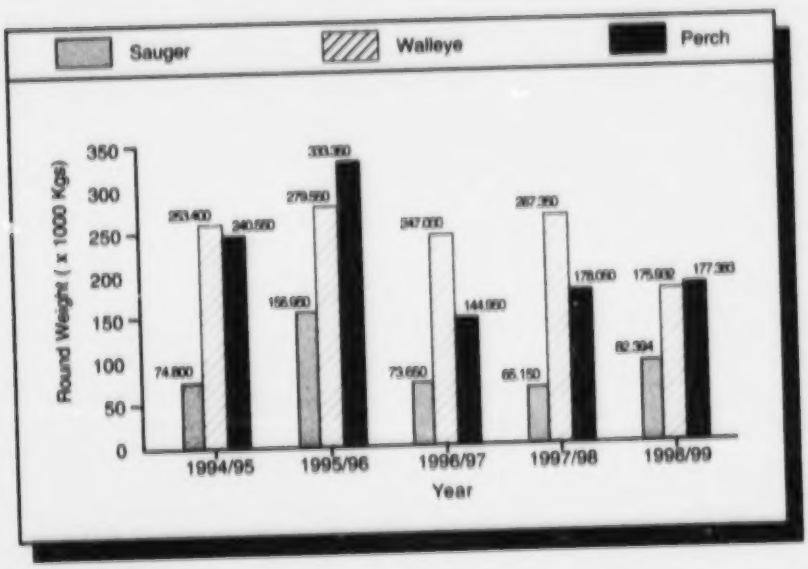
INITIATIVES

The production of pickerel/sauger dropped in 1998/99 with a significant decline in pickerel and a slight gain in sauger production. This was due in part to a two to three week delay in winter freeze up.

A three year agreement reached between the Department of Conservation and the Lake Manitoba Commercial Fishermen's Association to allow the continuation of a 3" mesh perch fishery at the reduced period of six weeks was negotiated in 1997/98.



Lake Winnipeg



Lake Manitoba

NORTHERN LAKES

Summer production in 1994 improved to 2.0 million kgs with termination of the FFMC's export and continental whitefish reduction programs. Summer (1995) production increased to 3.2 million kgs, likely due to a significant increase in fish prices and termination of all reduction programs except for cutter whitefish. Summer 1996 production decreased to 2.6 million kgs. and then to 2.1 million kgs. in 1997. Low production in 1997 was almost entirely due to fisheries along the Churchill River (Pukatawagan, Granville and South Indian Lake) that were negatively affected by high water levels. Summer production was normal in 1998 with Churchill River lakes producing well. An additional impact in 1998 was South Indian Lake having its whitefish grade reduced from Export to Cutter. The fishermen used a Sustainable Development Initiative Fund grant and support from Hydro to test-fish this summer and zoned the lake into Export and Cutter areas. Their efforts were successful in restoring this as an economically viable fishery, however continued efforts by the fishermen will be necessary to maintain this fishery. Summer production in 1999 returned to normal.

INITIATIVES

In 1997, Cedar Lake walleye stocks declined severely after 3 successive years of declining harvest. Chemawawin Cree Nation and the commercial fishermen's association voluntarily agreed not to commercially fish for 3 years, from June 1, 1998 to May 31, 2001. An expanded fish stock biological monitoring program was initiated cooperatively by Manitoba Conservation and Chemawawin Cree Nation in order to enable a better understanding of the fish stocks, and the sustainable management of the Cedar Lake fishery. Early indications are that one relatively strong year class has been produced. Protecting these fish to maturity as brood stock is essential to rehabilitating Cedar Lake's pickerel stocks.

Fish Transport by Plane

WABOWDEN FISHERIES/NORTHERN FLOOD AGREEMENT

The Cross Lake NFA Domestic Fishing Program resulted in conflicts with existing commercial allocations, as well as concerns about excessive levels of harvest on some smaller lakes. Wabowden fishermen were assured that the Province was aware of their concerns and they would be considered in any future negotiations with Cross Lake regarding the Domestic Fish Program.

INITIATIVES

An interim Domestic Fishing Program was finalized by Northern Affairs and Manitoba Hydro. Manitoba Conservation provided input to ensure that previous issues had been addressed. One of the outstanding issues is the need to reallocate lakes to the Domestic Program that are currently allocated to Wabowden commercial fishermen. Arrangements have to be made to deal with these fishermen fairly before the program can be implemented. It is anticipated that any new program will include licensing of the aboriginal fishermen and the purchase of quota for re-allocation.

INTRAPROVINCIAL MARKETING OPPORTUNITIES

A proposal to amend the Provincial Fisheries Act to allow fishermen to sell directly to retailers and restaurants in Manitoba was withdrawn in April 1993, with the understanding that other options for liberalizing fish marketing in Manitoba would be pursued. The options which are now available for increasing access for fishermen to Manitoba markets are Special Dealers Licences issued by the Freshwater Fish Marketing Corporation (FFMC), and the issuance of the Fisheries Branch Director's authorization to fishermen (under the authority of Section 10(2) of the Manitoba Fisheries Act) to allow Winnipeg retailers to sell fish on their behalf to final consumers.

Fish Filleting Demonstration

INITIATIVES

The Department, in consultation with other government agencies and FFMC, developed an Intraprovincial Fish Marketing Strategy including surveys to identify fish consumption patterns in Winnipeg. The primary objectives of the strategy were to expand markets for Manitoba produced fish within Manitoba and provide greater opportunities for small business within the province. The Department consulted with fishermen and retailers on their marketing interests, as well as with an ad hoc group of representatives of the Departments of Industry, Trade and Tourism, Northern Affairs, the Economic Development Board, and FFMC.

Other activities which the department undertook to help market under-utilized fish species in Manitoba includes:

- facilitation of an under-utilized commercial fish species promotion by the Forks Market and the Heart and Stroke Foundation in association with the Mid-Canada Marine Dealers Association's Family Fish Festival, and
- participation in the Heart and Stroke Foundation's "With Our Compliments" brochure handed out to households in Manitoba and featuring fish recipes for under-utilized commercial fish species.

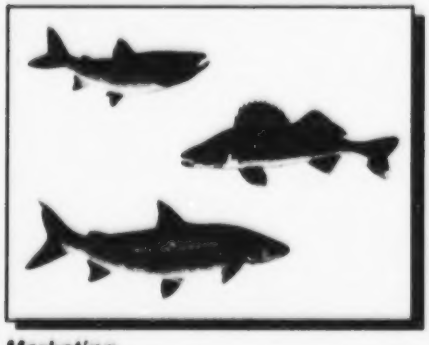
The Department extended use of Director's authorizations (which authorize fishermen to allow retailers to sell fish on their behalf to consumers). In 1994, 14 commercial fishermen were authorized Director's Authorizations to have four retailers in Winnipeg and one in Gimli act as their representatives to sell their fish directly to final consumers. In 1999, 64 director's authorizations were processed for commercial fishermen consigning their fish to 7 retailers. An evaluation was conducted in 1998 recommending that issuance of Director's Authorization be continued and that retailers be required to keep and submit records on all purchases of fish for resale.

FRESHWATER FISH MARKETING CORPORATION (FFMC)

Based on fishermen's concerns, the Standing Committee on Fisheries and Oceans, chaired by Ron Macdonald reviewed and produced a report to the Minister of the Department of Fisheries and Oceans (DFO) on future directions for the Freshwater Fish Marketing Corporation (FFMC). While the report presented a balanced presentation of the views and opinions expressed by fishermen within the FFMC's mandated area, its recommendation to dissolve the FFMC and transfer of marketing to the provinces was not consistent with fishermen's views that the FFMC was valuable and only required modifications to its mandate.

The Minister of DFO did not accept the report's major recommendation to dissolve the FFMC and transfer of marketing to the provinces. Rather, three specific actions were adopted:

- Island Lake area fishermen were allowed to opt out of the FFMC single desk marketing approach for a period of three years.
- Rough fish like mullets, freshwater drum and burbot would be taken off the list of fish controlled by the FFMC. Whitefish would continue to be marketed by the FFMC.
- The FFMC's advisory board would be elected on an area basis to better reflect regional representation of fishermen's views and concerns.



Marketing

INITIATIVES

- The Department is working closely with Island Lake fishermen to ensure a smooth transition in management and administration of the fishery under the pilot marketing project, including allowing for continued access to the provincial freight subsidy by individual fishermen. The Island Lake facility has been federally inspected so that the Co-op may access the export market. Manitoba's Northern Fishermen's Freight Assistance program is administered to Island Lake fishermen by the department, outside of normal administration through the FFMC.
- The Department anticipates continued pressure from other communities, such as Pukatawagan and South Indian Lake, to support marketing outside the FFMC. Regardless of intended market (domestic or export), communities opting out of the FFMC will result in increased program costs to the Department related to quota management information collection and increased enforcement associated with increased and diversified movements of fish.
- DFO's consultant has reviewed the Island lake exemption from the FFMC including an assessment of the costs and benefits of Island Lake opting out of the FFMC. The review has been presented to DFO. DFO has extended the Island Lake exemption for one more year to allow them to review the report and make decisions. Other northern fisheries have been advised that no other exemptions will be issued until after this assessment is complete but they continue to lobby to be able to sell fish independent of the FFMC.

CHALLENGES

Monitoring

- Inherent in fish management is a relatively high level of uncertainty around fish stock statistics. The inability, to predict fish stock status with a high degree of precision, combined with pressure for more use and development of the resource, has resulted in increased harvest pressure. This approach has resulted in a "one way ratchet" that over time culminates in excessive harvest and collapsed fish stocks. For sustainable development, any allocation system must be based on the concept of "living off the interest" of our renewable resources,while preserving the "principal".
- Allocate and manage commercial net fishing using accurate scientifically determined sustainable allowable harvest limits that ensure the sustainability of fish populations.
- Adopt a commercial fishing allocation strategy that emphasizes, in the face of scientific uncertainty, allocations at the lowest level of the allowable harvest range to ensure that the harvestable surplus is not exceeded.
- Work towards the development of a harvest strategy and monitoring program of sufficient magnitude to allow for the implementation of an annual harvest allocation.

Management

- Develop and maintain appropriate stakeholder advisory bodies on commercially fished lakes where appropriate.
- Protect against and address any commercial over harvesting by investigating and establishing mechanisms which may be used to:

  a. finance unusual management actions (e.g., buy quotas when fishery ebbs and sell back as fishery recovers),
  b. enhance monitoring activities,
  c. provide for third party, scientific review of other commercial fish management issues.

- Develop management principles for "economic" and "community" commercial net fishing operations that identify broad objectives relative to maintenance and industry development including community participation, income supplement and primary income objectives.
- Encourage the use of technologies and methods which are environmentally sound and help lower the costs of harvesting and processing operations.
- Review existing subsidies and support to the fishing industry and work with the industry to amend and establish incentives to ensure they encourage stakeholders and users of the resource to reinvest in their industry and strengthen their commitment to the sustainability of the resource and their industry and eliminate those incentives which do not.
- Continue to provide transportation cost relief through special programs.

DFO Dredging Program

The Canadian Coast Guard (CCG) is implementing cost-reduction initiatives and reducing service it provides in Manitoba. The termination of dredging services on Lake Winnipeg and the Red River would eventually end all commercial and large craft navigation on those waterways.

Assure losses of or delays in providing dredging services does not threaten the safety of fishermen and the economic viability of community fisheries.

Marketing

- Establish partnerships and consult regularly with industry, Aboriginal community and other government organizations regarding development of new market niches and market expansion.
- Continue to support expansion of intra-provincial direct sales to consumers by allowing small retailers to sell fish on behalf of specified fishermen.
- Establish partnerships and facilitate research into the use of under-utilized fish (i.e., rough fish) and value added processing of harvested fish resources.

Legislation

- Continue to enforce regulations prohibiting against the illegal sale, or movement of fish.
- Develop a lake production management system and formulate regulations that will provide accurate production records of all fish sold through the Freshwater Fish Marketing Corporation, non-FFMC sales, fish sold on consignment under Director's authorizations and fish sold under Special Dealers' Licences.

INTRODUCTION

Aboriginal Peoples Fishing

Historic evidence of the role of fish in the culture of Manitoba's first inhabitants is plentiful. Perhaps the best known is at the confluence of the Red and Assiniboine rivers known as The Forks. Archaeological evidence indicates Aboriginal peoples have gathered there to fish and socialize for over 6000 years.

Prior to European settlement, fish was critical to survival and as such, much more valuable than measured in contemporary economic terms. The use of fish depended on the species available. However, spring and fall spawning runs of sturgeon and whitefish respectively provided predictable sources of food.

Today, Aboriginal people's right to fish for food is protected constitutionally based on treaties signed in the late 1800's and early 1900's and the Natural Resources Transfer Agreement. Domestic fishing is a productive activity putting healthy food on the table. A survey in the early 1980's of the Cross Lake community indicated over 103,000 kilograms of fish were harvested for personal consumption in one year. Had this quantity of high quality protein been purchased at the local grocery store, it would cost about $657,000.

Constitutionally-protected food source.

OBJECTIVE

To ensure that the constitutional fish harvesting rights of aboriginals are protected.

STATUS AND TRENDS

Aboriginal and Treaty Fishing Rights

The Province of Manitoba recognizes that Aboriginal people may fish for food on unoccupied Crown lands and waters without a licence. This is based on the fishing rights of Indian people identified under various Treaties and under paragraph 13 of the Manitoba Natural Resources Transfer Agreement, which provides:

"13. In order to secure to the Indians of the Province the continuance of the supply of game and fish for their support and subsistence, Canada agrees that the laws respecting game in force in the Province from time to time shall apply to the Indians within the boundaries thereof, provided, however, that the said Indians shall have the right, which the Province hereby assures to them, of hunting, trapping and fishing game and fish for food at all seasons of the year on all unoccupied Crown lands and on any other lands to which the said Indians may have a right of access."

Applying the *Sparrow* decision of the Supreme Court of Canada, that right to fish for food may only be restricted by law where:

- there is a valid legislative objective such as conservation of a natural resource;
- the means of achieving that objective recognizes the first priority for allocation to the persons with the protected treaty or Aboriginal right;
- the restrictions are the least possible required to achieve the objective; and
- ordinarily, are instituted only after consultation with the affected Aboriginal people including an attempt to address the concerns raised by those Aboriginal people.

Restrictions on Aboriginal fishing for conservation or other purposes may be only addressed under the *Fisheries Act* (Canada) and the regulations under that Act. This is because limitations on the rights of Aboriginal people to fish, relate to federal areas of responsibility (fisheries conservation and "Indians"; s.91.12 and 91.24 of the *Constitution Act, 1867*). These areas are within the exclusive legislative authority of the Canadian Parliament.

In Manitoba, Status Indian people fishing for food are not required to have a fishing licence, unless required by a specific conservation regulation. The governments of Saskatchewan and Alberta, on the other hand, each require Aboriginal people to obtain a food fishing licence.

LAKE STURGEON POPULATIONS

Lake sturgeon are particularly important to Aboriginal people. However, the levels of harvest of lake sturgeon for domestic use in the Winnipeg, Saskatchewan and Nelson Rivers in the early 1990's put the viability of these sturgeon populations at risk. Subsequently, and with commercial and sport harvests eliminated, conservation closures were implemented under the federal Manitoba Fishery Regulations for lake sturgeon on the Winnipeg River and for part of the season on the Nelson River. Consultation with affected First Nations will be key to resolving these issues and a co-management arrangement continues with the Nelson River Sturgeon Management Board (representatives from six affected communities). Discussions are ongoing with those First Nations at Sagkeeng (Winnipeg River) and in The Pas (Saskatchewan River) regarding domestic sturgeon harvest.

INITIATIVES

An amendment was made to the federal Manitoba Fishery Regulations that allows the province to close any water body to fishing for any species and any such closure can be varied as required. This amendment was published in the Canada Gazette on November 29, 1995. Manitoba required greater or more flexible control of fishing in waters where over exploitation of certain species may be causing conservation problems.

Fisheries Branch developed procedural directives related to the administration of the Manitoba Fishery Regulations "Conservation Closures". The procedure provides for two levels of regulation depending on the severity of the concern and in accordance with the Sparrow decision. These levels are: 1) complete closure to all fishing including Treaty domestic fishing and 2) closure to all fishing but Treaty domestic harvest by permit on specific waters of concern.

Consultation with Bands involved has been a priority for department staff. Numerous meetings, and enhanced monitoring programs have been undertaken to verify stock concerns and to share information and involve appropriate Aboriginal peoples. Monitoring programs have indicated continued stock declines and consequently "conservation closures" remain in effect.

SPRING SPAWNING RUN HARVESTS

In a few instances, Status Indian harvest of fish on spring spawning runs increased. Site specific conservation closures for these areas exist with some closures being implemented at the request of the local First Nations or Status peoples. At other sites, excessive harvest/disruption of spawning fish is largely the result of a few persons efforts. In these instances, co-operative action is obviously most desirable but failing that, sufficient consultation is required to ensure that First Nations' people have had an "informed opportunity" to contribute to the resolution of the issue.

INITIATIVES

Following a household census and unanimous support a conservation closure was implemented for Pickerel Creek on Cormorant Lake in 1996. The closure has not been tested by any individuals and continues to experience wide support.

Likewise, a conservation closure was requested for the mouth of the Saskatchewan River by the local First Nation and commercial fishermen's co-operative. It was implemented in the spring of 1998 and again in 1999 to protect walleye (pickerel) spawning downstream from the Grand Rapids Generating Station including the spillway.

An agreement was reached to establish a Communication Forum between pertinent First Nations and Manitoba Conservation to protect spawning walleye on Dauphin Lake tributaries (Turtle River in particular). While a conservation closure was imposed, actions to date have related to education rather that enforcement.

CHALLENGES

1. Achieving co-operative fisheries management approaches is the most desirable means of meeting domestic fishing requirements and addressing conservation issues. Such approaches are increasingly more apt to occur as the department and the affected First Nations continue to communicate.

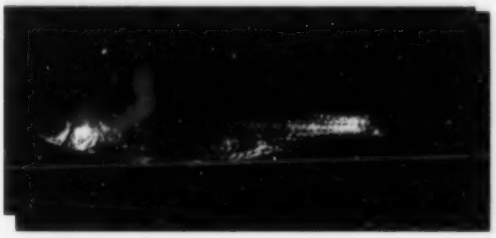
2.While it is intuitive that some amount of spawning is required for vital and viable fish stocks, the amount that is required and conversely, the amount of fish that can be taken, is not well understood. Sufficient fish must be present and they must be allowed to spawn undisturbed each year. The department will have to address this issue in the future to ensure fisheries sustainability in a "least infringement" fashion.

The pursuit of a common understanding of Treaty Rights amongst all Manitobans will be important in resolving existing and reducing future conflicts.

Commercial Bait Fishing

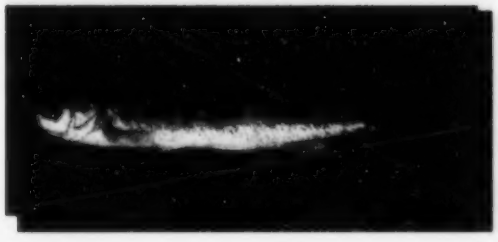
INTRODUCTION

Manitoba's live bait fish industry has continued to expand since 1995. Interest has also increased in harvest and sale of leeches as bait. The frozen bait fish industry has remained relatively stable.



Spottail Shiner

Finescale Dace



Pearl Dace

OBJECTIVES

1. To ensure that the opportunity for a viable bait industry exists where user demand is met, and a reasonable return on investment and time is provided for bait fishermen and dealers.

2. To minimize the risk of introducing undesirable fish species or aquatic organisms into watersheds outside their normal distribution.

STATUS AND TRENDS

The number of bait fish fishermen has been relatively stable, increasing slightly from 70 of which 38 were licensed to harvest live bait fish in 1994/95 to 74 of which 40 were licensed for live bait fish in 1998/99. The number of live bait fish dealers has increased more significantly from 37 in 1994/95 to 53 in 1998/99.

Current revenues in the bait fish industry are approximately $616,400, plus an additional $13,400 in licence sales.

In 1998/99, an estimated 2,050 kgs of leeches were produced for a value of approximately $72,100.

UNDESIRABLE SPECIES

The live bait industry is growing, and there is a concern due to the potential for movement of undesirable fish species, diseases, parasites, and undesirable biota in the accompanying water (e.g. zebra mussel larvae, purple loosestrife seeds).

INITIATIVES

A Live Aquatic Bait Plan has been developed. The plan is directed at working with the industry to maintain a viable but "environmentally friendly" industry within the geographical area where live bait use is currently allowed. The Department will continue to operate under the plan, reviewing and revising it as necessary.

OTHER AQUATIC SPECIES

Interest has been expressed in commercial harvest for bait of other aquatic species such as crayfish and amphibians (frogs, salamanders) which may also present environmental concerns. Fisheries regulations exist that can be used to control crayfish harvest, importation, and use. However, amphibians are controlled under the Wildlife Act with minimal restriction on areas of harvest and use. There is a need to coordinate departmental approaches to ensure consistency in regulating commercial activities and addressing environmental concerns.

INITIATIVES

Fisheries staff will work with other departmental staff and industry to determine appropriate and consistent management policies, procedures and regulations for harvest and use of aquatic organisms for bait.

LEECHES

Leeches are becoming of increasing interest and they may present the same environmental concerns as live bait fish. Importation of leeches is no longer allowed and regulations controlling the commercial harvest of leeches have been developed, however there are no restrictions within the province on transport and use of leeches by anglers.

INITIATIVES

More information is needed on potential environmental risks associated with leech use and transport. Further restrictions on areas of use may be unwarranted and detrimental to sustainability of the leech industry. Fisheries staff will work with other departmental staff (e.g. wildlife purple loosestrife experts) and industry to better determine potential environmental risks of leech use and whether further regulations are necessary.

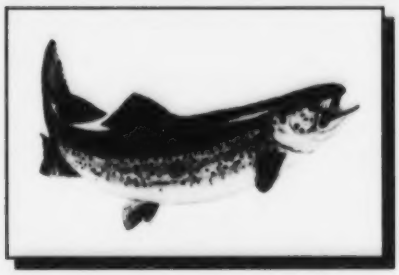
CHALLENGES

Fisheries Branch will continue to educate the live bait industry and anglers about the risks of spreading undesirable fish species or aquatic organisms into waters where they could degrade valuable recreational or commercial fisheries.

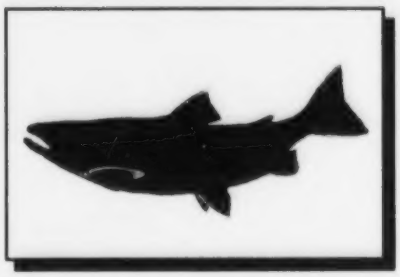
Fisheries Branch will work within the department and with industry to coordinate information and approaches to regulating harvest and use of aquatic organisms for bait.

INTRODUCTION

Fish farming in Manitoba is largely a cottage industry operated by 400-500 people who grow rainbow trout, arctic char, or other trout species for profit or for their own use. Most fish farming is done in farm dugouts and small ponds.



Rainbow Trout



Arctic Char

OBJECTIVE

1. To provide an environment which fosters rational development of the fish farming industry that will allow participants to earn reasonable returns on their investment and time.

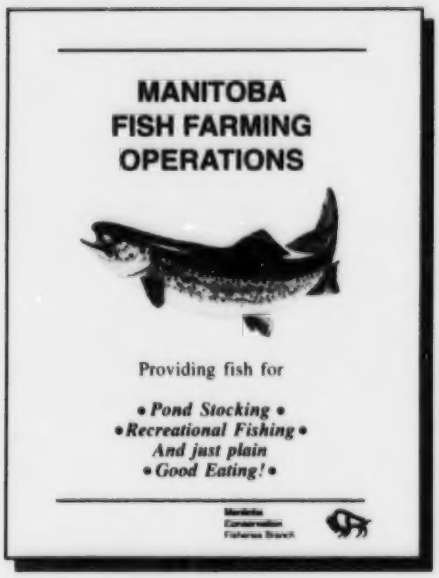
STATUS AND TRENDS

As noted above, fish farming is primarily a recreational and "hobby" industry. The number of licensed fish farmers has remained relatively stable, averaging 30 each year. Four major operators supply almost 600,000 fingerlings annually (primarily rainbow trout) to hobby farmers. Two of these are also grow-out operations, selling almost 12,000 kgs of rainbow trout and arctic char annually.

There are two "fee-for-fishing" operations in Manitoba, where people pay to fish in privately stocked ponds. These ponds are easily accessible and can be fished from shore. They are ideal for small children learning about fishing or for individuals with special needs who are unable to access sport fishing opportunities under more rugged conditions.

INDUSTRY CONSTRAINTS

While fish farming is a growing industry on the east and west coasts of Canada, major operations are few and declining in number in Manitoba. Markets and Manitoba's climate are recognized as the major constraints to highly capitalized intensive fish farming development in Manitoba. Production costs are high for Manitoba operations and impede their ability to compete in the marketplace with the variety of lower-cost fish products available.



Fish Farming Operations

INITIATIVES

1. A "Guide to Intensive Aquaculture in Manitoba" and "Manitoba Fish Farming Operations" that have been developed and are updated as necessary to address inquiries from the public. The guide is intended to make prospective fish farmers aware of the potential legal requirements, environmental concerns, relevant agency contacts, and general good business practices that will contribute towards increasing the potential for success of an aquaculture operation. The second publication lists licensed fish farmers in the province, the species and sizes of fish they raise, and some of the services they offer.

2. The federal government is promoting a federal/provincial aquaculture development initiative, which at this time focuses primarily on maritime operations. Manitoba will continue to lobby for more equity in the distribution of federal services related to technology transfer, dissemination of economic and environmental information, and access to funding sources. Along with research and development programs for freshwater aquaculture system technology, we need better information on the economic feasibility and marketing of freshwater cultured products in the highly competitive seafood industry.

CHALLENGES

The Department will monitor the industry to determine potential for future development and advise prospective fish farmers accordingly.

The Department will continue to provide technical information on fish farming on request. Fisheries staff will ensure that prospective fish farmers interested in intensive aquaculture are aware of potential legal requirements, environmental concerns, relevant agency contacts, and general good business practices that will contribute towards increasing the potential for success of an intensive aquaculture operation.

Fisheries Management Structure

Manitoba's fisheries are managed by Fisheries Branch (head office) staff and Operations Division (regional) staff.

Fisheries Branch is accountable for overall provincial program direction and reporting. This includes development of fisheries programs and budgets supported by the necessary legislation and policy, and coordination and monitoring program activities to ensure departmental targets are being met. The Branch consists of two sections:

1) Recreational Angling and Commercial Management, and

2) Habitat Management.

Regional Fisheries Managers, under the Operations Division, report to Regional Directors who are responsible for resolving local issues in a timely and decisive manner according to approved government policy. Regional Directors provide Regional Fisheries Managers with sufficient guidelines, flexibility and authority to resolve issues locally.

Fisheries Branch and Regional Operations Directors and Fisheries Managers work together to develop annual work plans to address specific issues and informational requirements within the regions. Regional Fisheries Managers work directly with Fisheries Branch head office staff on provincial policy/program development and interpretation, and issues with provincial implications, keeping Regional Directors informed of fisheries management activities. Regional Fisheries Managers work with Regional Directors in addressing regional issues.

THE NEXT FIVE YEARS

April 1, 1999 to March 31, 2004

Manitoba's fisheries are managed for long-term sustainability on an ecosystem basis. Biodiversity and ecological values are of primary importance but healthy fisheries will be managed to meet Manitobans' subsistence, recreational and income requirements.

Aquatic habitats are recognized as important public assets by Manitobans, with recreational, educational, social and economic benefits and values. There will be a net gain in the quality and quantity of fish habitat with active public and industry participation in habitat protection, restoration and enhancement. Education programs will include environmental ethics and the importance of healthy habitat for sustaining diverse aquatic ecosystems and fisheries values.

Sound biological, socioeconomic and cultural data collection and analyses are the foundation for management and allocation decisions. Allocation of fisheries will give priority to requirements for biological sustainability of the resource. Subsistence fisheries will be managed to meet the needs for food for First Nations peoples. The recreational fishery will provide a broad diversification of quality opportunities for catching healthy fish by all sectors of society, and within an "indigenous species focus". Commercial fisheries will be managed for economic viability and social-cultural benefits. Harvest and waste of non-target species will be reduced.

Public desires for uses of the fisheries resource as determined through the sustainable development for fish consultation process will be incorporated into management decisions. A wide array of partnerships between government and non-government organizations will result in an improved knowledge base, decreased allocation conflicts, shared decision-making, balanced accountability and better planning. Strategic mangement decisions will receive guidance from and be consistent with expected outcomes identified in the Manitoba Conservation corporate business plan.

Our employees will be recognized and appreciated for their commitment to stewardship of Manitoba's fisheries and excellence in service to all resource users. We will be acknowledged as being professional, accountable and as having the personal involvement, commitment and dedication to do a superior job. We will be integrated, team oriented, responsive to client needs and guided by honesty, integrity and fairness. We will seek means to improve productivity, effectiveness and efficiency. Furthermore, we will manage our natural heritage to assure a legacy of ecological productivity, diversity and sustainability.

Glossary of Terms

Access rights: in regards to commercial net fishing means fishermen who are in "good standing" and can expect the annual renewal of their authorization to participate in the commercial net fishing industry.

Community fishing operations: a commercial net fishing operation where a collective allocation at a "community" level is made, to enable the fulfilment of social objectives [e.g., increased participation] as opposed to allocations made to individual fishermen.

Ecosystem based management: the integrated management of ecological systems (natural landscapes, ecological processes, and physical and biological components) and human activities (policies, programs, actions and evaluations) to maintain or enhance the health and integrity of an ecosystem.

Exotic [aquatic species or organisms]: any species or organism not having originated naturally or not having become naturalized in a particular region or environment.

Fish: fish as well as an aquatic invertebrates [e.g., leeches], shell fish [e.g., clams] and crustaceans [e.g., crayfish].

Fish transportation loadslip: a form required by provincial regulation for transporting "commercial quantities of fish".

Habitat: freshwater environments that directly or indirectly support fish stocks or fish populations.

Instream flow: the magnitude, frequency, duration and timing of stream flows required to maintain the ecological integrity of the flowing water system.

Native species: species existing and having originated naturally or having become naturalized in a particular region or environment.

No net loss of fish habitat: a principle which strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that reductions to Manitoba's fish resources due to habitat loss or damage may be prevented.

Riparian areas: the zone along rivers, creeks, lakes, sloughs, potholes and springs.

Subsistence harvesting: the harvesting of fish for subsistence reasons [necessity for life] and includes food fishing in remote northern areas by non-status persons and the constitutionally protected right of Status Indians to fish for food.

Sustainability: the capacity of a thing, action, activity or process to be maintained indefinitely in a manner consistent with the spirit of Manitoba's Principles and Guidelines of sustainable development.

Sustainable development: meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Tenure: the management principle that recognizes the right of licensed commercial fishing operators (net and tourism based) to continue to fish or provide angling opportunities provided they meet specified performance standards. The tenure right is considered to be transferable to other commercial operators subject to provincial approval and is a right of access to, not ownership of fish.

Water quality: the characteristics of water that help determine its usefulness for whatever purpose desired; e.g., flow, volume, pH, temperature, hardness, trace elements, etc. In this case, the characteristics of water that determine if fishes can or will live in the water.